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## DRUG DESIGN BASED ON THE STRUCTURE OF LTA<sub>4</sub> HYDROLASE

### 1. BACKGROUND

#### 1.1 Technical field

5 The present invention relates to methods of design or identification of biologically active compounds, which methods are based on the first definition ever of a three-dimensional structure of a protein involved in the leukotriene cascade. Further, the invention relates to novel compounds obtained by said methods, to advantageous uses of such compounds as well as to processes for the preparation thereof.

10

#### 1.2 Prior art

Leukotriene A<sub>4</sub> (LTA<sub>4</sub>) hydrolase is a pivotal enzyme in the biosynthesis of leukotrienes, a family of paracrine hormones implicated in the pathophysiology of inflammatory and allergic disorders, in particular bronchial asthma (Samuelsson, B. *Science* 220, 568-75 (1983); and Lewis, R.A., Austen, K.F. & Soberman, R.J. *N Engl J Med* 323, 645-55 (1990)). Leukotrienes are formed by immunocompetent cells including neutrophils, eosinophils, basophils, mast cells, and macrophages, in response to a variety of immunological as well as non-immunological stimuli. These lipid mediators are divided into two major classes exemplified by the chemotaxin LTB<sub>4</sub>, and the spasmogenic cysteinyl-leukotrienes (LTC<sub>4</sub>, LTD<sub>4</sub>, and LTE<sub>4</sub>). Leukotriene biosynthesis is initiated by the enzyme 5-lipoxygenase which converts arachidonic acid into the unstable epoxide LTA<sub>4</sub>, a central intermediate in the leukotriene cascade. LTA<sub>4</sub> may in turn be hydrolyzed into LTB<sub>4</sub> by the enzyme LTA<sub>4</sub> hydrolase, or conjugated with GSH to form LTC<sub>4</sub>, a reaction catalyzed by a specific LTC<sub>4</sub> synthase. During cellular activation, all key enzymes in leukotriene biosynthesis, except LTA<sub>4</sub> hydrolase, form a biosynthetic complex assembled at the nuclear membrane, suggesting that leukotrienes may have unknown intranuclear functions related to gene regulation or cell growth (Serhan, C.N., Haeggstrom, J.Z. & Leslie, C.C. *Faseb J* 10, 1147-58 (1996)).

30

Leukotriene B<sub>4</sub>, the natural product of LTA<sub>4</sub> hydrolase, is one of the most powerful chemotactic agents known to date and triggers leukocyte adherence and aggregation at only nM concentrations (Ford-Hutchinson, A.W., Bray, M.A., Doig, M.V., Shipley, M.E. & Smith, M.J.H. *Nature* 286, 264-265 (1980)). Hence, this molecule is regarded as a key mediator of inflammation, and has been implicated in a number of diseases, including arthritis, psoriasis, inflammatory bowel disease (IBD), and chronic obstructive pulmonary disease (COPD). Furthermore, the role of LTB<sub>4</sub> in inflammation has been well corroborated by the anti-inflammatory properties of LTA<sub>4</sub> hydrolase inhibitors, particularly in combination with a cyclooxygenase inhibitor, and specific LTB<sub>4</sub> receptor antagonists, as well as the reduced inflammatory reactions observed in several animal models of leukotriene deficiency (Tsuiji, F., Miyake, Y., Enomoto, H., Horiuchi, M., Mita, S. *Eur. J. Pharmacol.* 346, 81-85, (1998); Chen, X.S., Sheller, J.R., Johnson, E.N. & Funk, C.D. *Nature* 372, 179-182 (1994); Griffiths, R.J., *et al.* *Proc Natl Acad Sci U S A* 92, 517-21 (1995); and Griffiths, R.J., *et al.* *J Exp Med* 185, 1123-9 (1997)). In addition, LTB<sub>4</sub> modulates the immune response, *e.g.*, by interference with specific subsets of lymphocytes, production of cytokines, as well as liberation of immunoglobulins from B-lymphocytes (Payan, D.G., Missirian-Bastian, A. & Goetzl, E.J. *Proc Natl Acad Sci U S A* 81, 3501-5 (1984); Rola-Pleszczynski, M. & Lemaire, I. *J Immunol* 135, 3958-61 (1985); and Yamaoka, K.A., Claesson, H.E. & Rosen, A. *J Immunol* 143, 1996-2000 (1989)). Recent data also indicate that LTB<sub>4</sub> stimulates, and thus has a crucial role in the regulation of, cell proliferation and cell survival in HL-60 cells, suggesting that LTA<sub>4</sub> hydrolase inhibitors may have an anti-proliferative effect. (Dittman, K.H., Mayer, C., Rodemann, H.P., Petrides, P.E., and Denzlinger, C. *Leuk. Res.* 22, 49-53 (1998)). The cell surface receptor for LTB<sub>4</sub> (BLTR) was recently cloned and found to be abundantly expressed in the immune system, including lymphocytes, spleen and thymus (Yokomizo, T., Izumi, T., Chang, K., Takuwa, Y. & Shimizu, T. *Nature* 387, 620-624 (1997)). BLTR belongs to a family of chemokine receptors and, interestingly, together with CD4 it was found to be an efficient coreceptor for HIV-1 infection (Owman, C., *et al.* *Proc Natl Acad Sci U S A* 95, 9530-4 (1998)).

Moreover, LTB<sub>4</sub> is also a natural ligand to the nuclear orphan receptor PPAR $\alpha$ , suggesting that LTB<sub>4</sub> may have intranuclear functions possibly related to lipid homeostasis (Devchand, P.R., *et al. Nature* 384, 39-43 (1996)).

- 5 LTA<sub>4</sub> hydrolase is a cytosolic 69 kDa enzyme without any similarity to other soluble or membrane bound xenobiotic epoxide hydrolases (Funk, C.D., *et al. Proc Natl Acad Sci U S A* 84, 6677-81 (1987)). The enzyme's epoxide hydrolase activity, which generates LTB<sub>4</sub>, is highly substrate selective accepting only LTA<sub>4</sub> and to a small extent the double bond isomers LTA<sub>3</sub> and LTA<sub>5</sub>. Typically, LTA<sub>4</sub> hydrolase  
 10 undergoes suicide inactivation and covalent modification when exposed to LTA<sub>4</sub> (Evans, J.F., Nathaniel, D.J., Zamboni, R.J. & Ford-Hutchinson, A.W. *J. Biol. Chem.* 260, 10966-10970 (1985)). During this process, LTA<sub>4</sub> apparently binds to Tyr-378, a residue which also seems to play a role for the formation of the critical *cis-trans-trans* geometry in the conjugated triene structure of LTB<sub>4</sub> (Mueller, M.J.,  
 15 *et al. Proc Natl Acad Sci U S A* 93, 5931-5935 (1996); and Mueller, M., Andberg, M., Samuelsson, B. & Haeggstrom, J. Z. *J. Biol. Chem.* 271, 24345-24348 (1996)).

- From sequence comparisons with certain metalloproteases and aminopeptidases, a zinc binding motif (HEXXH-X<sub>18</sub>-E) was unexpectedly found in LTA<sub>4</sub> hydrolase  
 20 (Vallee, B.L. & Auld, D.S. *Proc. Natl. Acad. Sci. USA* 87, 220-224 (1990)). Further studies demonstrated that the enzyme indeed contains one catalytic zinc atom complexed to His295, His299, and Glu318 (Medina, J.F., *et al. Proc. Natl. Acad. Sci. USA* 88, 7620-7624 (1991)). In addition, a previously unknown peptide cleaving activity was discovered which requires the presence of anions, particularly  
 25 chloride (Haeggström, J.Z., Wetterholm, A., Medina, J.F. & Samuelsson, B. *J Lipid Mediator* 6, 1-13 (1993)). Although the endogenous physiological peptidase substrate(s) has not yet been identified, LTA<sub>4</sub> hydrolase cleaves certain arginyl di- and tripeptides with very high efficiency (Örming, L., Gierse, J.K. & Fitzpatrick, F.A. *J. Biol. Chem.* 269, 11269-11273 (1994)). Hence, LTA<sub>4</sub> hydrolase can be described as



a bifunctional zinc metalloenzyme with the unique ability to accept both lipid and peptide substrates. Using site-directed mutagenesis, Glu296 and Tyr383 were found to be critical for the peptidase reaction, presumably as a general base and proton donor, respectively (Blomster, M., Wetterholm, A., Mueller, M.J. & Haeggström, J.Z. *Eur. J. Biochem.* 231, 528-534 (1995); and Wetterholm, A., *et al. Proc Natl Acad Sci U S A* 89, 9141-9145 (1992)). Since the enzyme's ability to convert LTA<sub>4</sub> into LTB<sub>4</sub> was not affected by the mutations, the two enzyme activities of LTA<sub>4</sub> hydrolase are exerted via non-identical but overlapping active sites. Notably, unlike other enzymes in the leukotriene cascade, LTA<sub>4</sub> hydrolase is ubiquitous in mammalian cells and tissues suggesting that it may have other functions presumably related to its peptide cleaving activity.

As a consequence of the identification of LTA<sub>4</sub> hydrolase as a zinc metalloenzyme with a peptidase activity, it was observed that LTA<sub>4</sub> hydrolase is inhibited by bestatin, a general aminopeptidase inhibitor, and captopril, an inhibitor of angiotensin converting enzyme (Örning, L., *et al. J. Biol. Chem.* 266, 16507-16511 (1991)).

Tsuge *et al.*, (*J. Mol. Biol.* 238,854-856 (1994)), have described the crystallization of LTA<sub>4</sub> hydrolase. However, despite the well recognized need thereof, the three-dimensional structure of LTA<sub>4</sub> hydrolase has not yet been disclosed. More specifically, the problems that need to be overcome in order to provide such a determination may in brief be explained as follows. There are two major difficulties in obtaining a three-dimensional structure of a protein molecule. The first one is to grow crystals of good quality that are reproducible and diffract to atomic resolution (beyond 2.5Å). This means a thorough and cumbersome investigation of parameters that influence the crystal growth such as pH, temperature, nature of buffers, nature of precipitant, just to mention a few. The addition of ligands such as substrate analogues or inhibitors or the addition of other molecules can be important for obtaining good crystals. There is only little understanding of the physical background of the crystallisation process which means that the search for suitable crystallisation

conditions for a certain protein is unique, requires creativity and intuition, and is governed by trial and error procedures. The purity of the protein is also a crucial parameter in the crystallisation and a suitable degree of purity can be hard, or even impossible, to achieve. The second major difficulty is associated with overcoming the phase-problem which is inherent to X-ray diffraction methods. To be able to overcome this problem it is necessary to substitute the protein with suitable heavy atom substance such as e.g. mercury, gold or platinum compounds. Crystals often cannot withstand the treatment with these compounds and the search for suitable substitutions is not straight forward and may become very exhaustive. Another option is to substitute all methionines by seleno-methionine (Se-Met) residues. This method requires production of recombinant protein in special strains of *E. coli* under non-standard conditions, followed by a new purification and recrystallisation of the Se-Met containing protein. Although Tsuge et al reported the crystallisation of LTA<sub>4</sub> hydrolase, their crystals only diffracted to medium resolution and the phase-problem was not solved. Thus, as a reliable definition of the three-dimensional structure of LTA<sub>4</sub> hydrolase would enable e.g. a display in visual form on a computer screen of the shape of the molecule, then, could the above mentioned problems be solved, a whole range of possibilities would be opened, such as rational structure-based drug design, e.g. in combination with combinatorial chemistry, aimed at production of novel medicaments useful in disorders associated with the leukotriene cascade, as well as protein-engineering to create novel variants of the enzyme with altered, but yet useful, catalytic properties.

As LTA<sub>4</sub> hydrolase is a recognized important drug target, some inhibitors thereof have been synthesized (Wetterholm, A., *et al. J Pharmacol Exp Ther* 275, 31-7 (1995); and Yuan, W., Wong, C., Haeggstrom, J. Z., Wetterholm, A. & Samuelsson, B. *J. Am. Chem. Soc.*, 114, 6552-6553 (1992)). Interestingly, certain inhibitors of LTA<sub>4</sub> hydrolase were reported to act also as LTB<sub>4</sub> receptor antagonists (Labaudinière R, Hilboll G, Leon-Lomeli A, Terlain B, Cavy F, Parnham M, Kuhl P, and Dereu N. *J. Med. Chem.* 35, 3170-3179 (1992)). Due to the absence of any

available information regarding the three-dimensional structure of LTA<sub>4</sub> hydrolase, as discussed above, none of the previously described inhibitors have been designed based on the exact structure thereof. Accordingly, there is a need within this field of determining the three-dimensional structure of LTA<sub>4</sub> hydrolase in order to design more potent and selective inhibitors of LTA<sub>4</sub> hydrolase as well as modified structures exhibiting even more advantageous pharmaceutical properties.

## 2. THE PRESENT INVENTION

As the following chapter includes a substantial amount of text, it has herein been divided into separate sections, each one of which disclose separate aspects of the present invention.

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## 2.1 Summary of the invention

- The object of the present invention is to fulfill the above defined need. This has been achieved by the crystallization and determination of the three-dimensional structure of LTA<sub>4</sub> hydrolase complexed with the competitive inhibitor bestatin and subsequent structure determination of complexes between LTA<sub>4</sub> hydrolase and two specific inhibitors. It is the first three-dimensional structure of any protein component of the leukotriene cascade and enables a description of the structural basis and molecular mechanisms of various enzyme functions, such as the two catalytic activities of LTA<sub>4</sub> hydrolase. In addition, the structural information will now make possible rational design of enzyme inhibitors, which may be developed into clinically useful anti-inflammatory drugs.

## 2.2 Brief description of the drawings

- 30 Figure 1 shows the key enzymes and intermediates in leukotriene biosynthesis.

Figure 2 shows 2Fo-Fc density contoured at 1.1  $\sigma$ . Part of the active site in the neighborhood of the bestatin molecules is shown.

Figure 3 is a ribbon diagram of the tertiary structure of leukotriene A<sub>4</sub> hydrolase.

Figure 4 (a) is a ribbon diagram of the N-terminal domain.

5 Figure 5 (a) is a ribbon diagram of the catalytic domain.

Figure 6 shows the structure of the C-terminal domain.

Figure 7 illustrates zinc binding ligands in LTA<sub>4</sub> hydrolase.

Figure 8 (a) is a Ball-and-Stick presentation of the binding of bestatin in LTA<sub>4</sub> hydrolase.

10 Figure 8 (b) is a schematic overview of bestatin binding in LTA<sub>4</sub> hydrolase.

Figure 9 (a) is a wire representation of the central cavity found in LTA<sub>4</sub> hydrolase (shown as C $\alpha$ -trace).

Figure 9 (b) is a schematic presentation for the proposed binding of LTA<sub>4</sub> into the cavity.

15 Figure 10 is a schematic representation for the proposed reaction mechanism of the epoxide hydrolase.

### 2.3 Definitions

20 In the present context, the term "the three-dimensional form adopted thereof in nature" is to be understood as the conformational structure, defined by the parameters x, y and z in a conventional coordinate system, that a naturally occurring molecule adapt under conditions where it is capable of exerting its biological activities. The specific conditions during which the herein presented data were collected are detailed in the section "Experimental".

25 The term "isolated" and variations thereof when used in connection with a molecule, such as protein, a polypeptide or a nucleic acid, means that said molecule is isolated from other substances, such as other proteins, DNA etc normally accompanying it in its natural environment.

30 The term "leukotriene A<sub>4</sub> (LTA<sub>4</sub>) hydrolase" as used herein is to be understood to include any mammalian or other LTA<sub>4</sub> hydrolase which comprises the same back-

bone as the human form specifically disclosed in the present application, irrespective of source. The amino acid sequences of mammalian LTA<sub>4</sub> hydrolase have been shown to be identical to about 90%. Thus, the three-dimensional structures thereof may be suspected to be identical to approximately the same extent.

- 5 "Thiolamine" and "hydroxamic acid" are used herein to denote the compounds exemplified in the Experimental section of the present specification.

A "complementary compound" means any compound, the structure of which enables a binding thereof to a specified protein, i.e a compound having a conformation or structure enabling such a suitable fit as to provide an energetically favorable interaction between protein-complementary compound.

10

"Analogue" means, as used herein, a chemically altered molecule which shares the backbone with, or at least structurally resembles, a "parent molecule". In the present specification, such a "parent molecule" may be LTA<sub>4</sub> hydrolase or an inhibitor thereof.

- 15 In the present application, the term "active site" is to be understood to include any region capable of binding a substrate and converting it into product.

The term "nucleic acid" refers to a deoxyribonucleotide or ribonucleotide polymer in either single- or double-stranded form, and unless otherwise limited, encompasses known analogs of nucleotides, that can function in a similar manner as naturally occurring nucleotides.

20

The phrase "hybridising specifically to" refers to the binding, duplexing, or hybridising of a molecule only to a particular nucleotide sequence under stringent conditions when that sequence is present in a complex mixture (*e.g.*, total cellular) of DNA or RNA. The term "stringent conditions" refers to conditions under which a probe will hybridise to its target subsequence, but to no other sequences. Stringent conditions are sequence-dependent and will be different in different circumstances. Longer sequences hybridise specifically at higher temperatures. Generally, stringent conditions are selected to be about 5°C lower than the thermal melting point T<sub>m</sub> for the specific sequence at a defined ionic strength and pH. The T<sub>m</sub> is the temperature (under defined ionic strength, pH, and nucleic acid concentration) at which 50% of

25

30

the probes complementary to the target sequence hybridise to the target sequence at equilibrium. (As the target sequences are generally present in excess, at  $T_m$ , 50% of the probes are occupied at equilibrium). Typically, stringent conditions will be those in which the salt concentration is less than about 1.0 M Na ion, typically about 0.01 to 1.0 M Na ion concentration (or other salts) at pH 7.0 to 8.3 and the temperature is at least about 30°C for short probes (e.g., 10 to 50 nucleotides) and at least about 60°C for long probes (e.g., greater than 50 nucleotides). Stringent conditions may also be achieved with the addition of destabilizing agents such as formamide.

"Essentially pure" means herein a purity of at least about 80%, especially at least about 90% and preferably at least about 95%, such as 98-99%. The purity of LTA<sub>4</sub> hydrolase, an analogue or inhibitor thereof is according to the present invention preferably determined by general biochemical and biophysical methods well-known to the skilled in this field. For proteins, SDS polyacrylamide gel electrophoresis (SDS-PAGE) with Coomassie and silver staining or amino acid sequence analysis can be used, whereas high-pressure liquid chromatography (HPLC), gas chromatography coupled to mass spectrometry (GC-MS), and nuclear magnetic resonance spectroscopy (NMR) are suitable methods for small organic molecules (peptides, lipids, or carbohydrates, or combinations of these classes of substances).

## 2.4 Detailed description of the invention

### 2.4.1 LTA<sub>4</sub> hydrolase, subsequences and analogues thereof

In a first aspect, the present invention relates to an isolated protein comprising at least a subsequence of the amino acid sequence of leukotriene A<sub>4</sub> (LTA<sub>4</sub>) hydrolase, which subsequence has the corresponding three-dimensional form adopted thereof in nature. The protein according to invention as discussed below and elsewhere in this application is also understood to encompass any other functionally equivalent part, derivative or conformational analogue thereof. More specifically, the invention relates to the above disclosed protein which comprises a subsequence of the amino acid sequence of leukotriene A<sub>4</sub> (LTA<sub>4</sub>) hydrolase, which is able to participate in, and influence, e.g. by providing enzymatic activity, the leukotriene cascade. Most

preferably, the protein according to the invention is capable of controlling said cascade by exerting an enzymatic activity and thus regulate the production of leukotriene B<sub>4</sub> (LTB<sub>4</sub>). In a particular embodiment, the protein is comprised of essentially all of the amino acid sequence of leukotriene A<sub>4</sub> (LTA<sub>4</sub>) hydrolase as disclosed in SEQ ID NO 1, or a functionally equivalent part, derivative or conformational analogue thereof.

Thus, the present invention relates to an isolated LTA<sub>4</sub> hydrolase in its naturally occurring three-dimensional form. More specifically, the present application provides a listing illustrating, for the first time, the coordinates defining human LTA<sub>4</sub> hydrolase complexed to an inhibitor thereof. Thus, the coordinates defining the conformation of LTA<sub>4</sub> hydrolase have been determined by the present inventors as complexed with bestatin, thiolamine and hydroxamic acid, respectively. Bestatin is a universal inhibitor of amino peptidase activity, while the last mentioned two are specific inhibitors of LTA<sub>4</sub> hydrolase. Based on these different activities, said inhibitors may be used as models in the design of novel molecules having desired properties. Methods for such design will be discussed in further detail below as a further advantageous aspect of the invention. For reasons of convenience for the reader of the present specification, the data collection comprising the novel coordinates according to the invention is included in the present description as a separate section denoted "X-ray data", as Tables 9-11, immediately preceding the claims. In said tables, atom no 1 to atom no 4876 define the LTA<sub>4</sub> hydrolase part of the complex. In table 9, atom no 4882 to atom no 5463 relate to bestatin. (Bestatin has been thoroughly discussed in the literature, see e.g. Mathé, G. *Biochem. Pharmacol.* 45, 49-54 (1991).) The intervening atoms relate to the metals that bind in LTA<sub>4</sub> hydrolase, i.e. the active site Zn atom and the Yb atoms that were crucial for the present structure determination. The conditions prevailing at the determination thereof will be described in detail in the Experimental section below. As the skilled in this field realises, such coordinates usually exhibit a certain degree of variation, due to e.g. thermal motion and slight differences in crystal packing. Thus, any references herein to Tables 9-11 in connection with the proteins and other molecules are



merely intended to illustrate the coordinates defining the conformation of the molecules under identical conditions, as determined by use of the same apparatus and method. Accordingly, this embodiment of the invention is not limited to a molecule having exactly the specified coordinates, but rather to molecules capable of adopting such a structure. For example, a human LTA<sub>4</sub> hydrolase according to the invention will exhibit a strong bit a conformational similarity with the coordinates presented by atom nos 1 - 4876 of Tables 9-11, wherein a variation of about 1%, or 0.5 Å, may be expected. Accordingly, any such variants are within the scope of the present invention.

As regards amino acid sequence, in a specific embodiment, the protein according to the invention is identical, by direct sequence comparison, to at least about 50%, more specifically, at least about 70%, such as at least about 90%, to the LTA<sub>4</sub> hydrolase as defined by SEQ ID NO. 1 while in the three-dimensional form adopted thereof in nature. In this context, it is noted that the amino acid sequence of LTA<sub>4</sub> hydrolase also appears from the data of Tables 9-11, but is also included as a separate sequence listing for reasons of clarity. The protein of this embodiment of the invention are e.g. variants originating from any species, preferably mammals, such as humans, mice or other rodents, etc. Alternatively, the variants including subsequences of the human sequence are mutated forms, resulting from either spontaneous mutations or deliberately produced mutations, as discussed in more detail below.

One preferred embodiment of the present invention is a protein which comprises at least one of the regions defined below in Tables 1-3 below as active sites.

Table 1: Residues lining the big cavity from outside to inside

	Left wall	Right wall
--	-----------	------------

1		Lys608, Asp606, Lys605, Lys354, Thr355
2	Phe356, Phe362	Gln544, Asp573, Lys572, Arg568
3	Val376	Lys565, Arg540, Leu507
4	Ser380, Ser352, Glu348	Pro569
5	Tyr378, Glu348	Arg563, Glu533, Phe536, Arg537, Tyr267
6	Tyr383, Phe314, Glu318, Glu384, Arg326	
7	Gly268, Gly269, Met270	His295, Asn341, Phe340
8	Ser288, His497	Glu325, Asn291

In Table 1, Lys565, Ser380, Pro569, Glu533, Tyr383, Phe314, Glu318, Glu384, Arg326, Gly268, Gly269, Met270, His295, Phe340, Ser288, and Glu325 are strictly conserved amino acids, while Lys608, Phe356, Phe362, Lys572, Arg568, Tyr378, Phe536, Tyr 267, and Asn291 are conserved in nature.

Table 2: Amino-acids in the bestatin binding site ("basic" amino-peptidase site)

The binding of bestatin to LTA<sub>4</sub> hydrolase is described by way of coordinates in Table 9. Below follows the specific amino acids involved in the binding of bestatin and similar structures.

Gln136  
Ala137  
Tyr267  
Gly268  
Gly269  
Met270  
Glu271  
Val292

His295

Glu296

His299

Glu318

5 Tyr378

Tyr383

Arg563

Lys565

10

Table 3: Amino acids in the leukotriene binding site

The present amino acids define the site binding leukotriene-based inhibitors, such as thiolamine and hydroxamic acid, as shown in Tables 10 and 11, respectively.

Gln136

15 Ala137

Tyr267

Gly268

Gly269

Met270

20 Glu271

Val292

His295

Glu296

His299

25 Trp315

Glu318

Val322

Phe362

Val367

30 Leu369

Pro374

Asp375

Ile372

Ala377

5 Pro382

Tyr378

Tyr383

Arg563

Lys565

10

In Tables 1-3 above, the enumeration of the amino acid sequence of LTA<sub>4</sub> hydrolase begin without the initial Met. Thus, compared to SEQ ID NO 1, which includes the initial Met, the amino acid enumeration above is lowered by one. Accordingly,

15 Gln136 above corresponds to Gln 137 of SEQ ID NO 1, Ala137 above corresponds to Ala 138 of SEQ ID NO 1, etc.

Table 4: General catalytic domain for the M1 class of enzymes

Amino acids no. 210-450.

20

The present region will provide a basis for the development of enzyme inhibitors useful in the control other biological pathways than the leukotriene cascade.

Thus, as regards the above defined region of aminopeptidase activity of LTA<sub>4</sub> hydrolase, the present inventors have surprisingly observed, that said region is in fact universal for all enzymes belonging to the metallohydrolase family denoted M1.

25 Thus, this specific subsequence of LTA<sub>4</sub> hydrolase is encompassed by the present invention as a novel protein *per se*. In addition to the various advantageous uses of subsequences of LTA<sub>4</sub> hydrolase described herein in connection with the leukotriene cascade, this region, which is shared between all M1 enzymes, will find several further applications in connection with other enzymatic pathways. For example,

30

the present region, herein denoted the "M1 region" in order to clarify that it is shared between the M1 enzymes, may advantageously be used to produce synthetic inhibitors, or identify natural inhibitors, of any one of the other M1 enzymes. Such M1 inhibitors will be discussed below when compounds complementary to LTA<sub>4</sub> hydrolase are disclosed.

The above disclosed proteins and peptides comprising subunits of LTA<sub>4</sub> hydrolase are advantageously used e.g. as enzymes or more preferably in methods wherein novel inhibitors of enzymatic activities are identified and/or designed.

#### 2.4.2 Compounds complementary to LTA<sub>4</sub> hydrolase

In a second aspect, the present invention relates to a novel compound defined by a structure substantially complementary to the above described protein, preferably identified by use of the novel LTA<sub>4</sub> hydrolase conformation according to the present invention. The complementary compound is a naturally occurring or synthetic protein, peptide, lipid, carbohydrate or any other organic or inorganic compound. In relation to naturally occurring compounds, it is to be understood that the present invention relates to such compounds as isolated from their natural environment, preferably identifiable by aid of the novel coordinates defining structures according to the invention, as exemplified by the complementary compounds used in the complexes shown in Tables 9-11.

In a first embodiment, the present complementary compound is substantially complementary to an enzymatically active site of the protein and is advantageously capable of specifically inhibiting an enzymatic activity of said protein. Thus, in one embodiment, the present compound is substantially complementary to parts, or all, of the "basic" aminopeptidase binding site defined in Table 2 above. Thus, the present compound is an inhibitor capable of specifically inhibiting an aminopeptidase activity of an enzyme, preferably of LTA<sub>4</sub> hydrolase. In an alternative embodiment, the present compound is substantially complementary to parts, or all, of the leukotriene binding site as defined in Table 3 above. Thus, the present compound is an

inhibitor capable of specifically inhibiting an epoxide hydrolase activity of an enzyme, preferably of LTA<sub>4</sub> hydrolase. (The inhibition of both aminopeptidase and epoxidase hydrolase is discussed in detail below in the experimental section.) As the present two binding sites of LTA<sub>4</sub> hydrolase overlap in part, a further embodiment is

5 a compound which is complementary to essential parts of both of the above discussed two binding sites, in part or partially, which thus preferably is an inhibitor of both the discussed activities.

As already mentioned above, one compound which is complementary to an enzymatically active site of LTA<sub>4</sub> hydrolase is a compound complementary to the M1 region thereof and thus capable of partial or total inhibition of the enzymatic activity of LTA<sub>4</sub> hydrolase or any other metallohydrolase belonging to the M1 family. In the present application, such inhibitors will be denoted M1 inhibitors.

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As the skilled in this field will realise, the present inhibitors disclosed above need not be compound that inhibit a biological activity completely, but may be capable of exerting a partially inhibiting activity, i.e. lowering the enzymatic activity.

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In another embodiment, the present complementary compound is a compound which is also capable of binding to the receptor for the product of an LTA<sub>4</sub> hydrolase, i.e. an LTB<sub>4</sub> receptor, e.g. on a cell, such as a polymorphonuclear leukocyte. Thus, such a compound may be useful as an LTB<sub>4</sub> antagonist whereby the biological effect of LTA<sub>4</sub> hydrolase activity may be regulated. Accordingly, any such LTB<sub>4</sub> antagonist designed and/or identified using the coordinates of LTA<sub>4</sub> hydrolase as presented herein are also encompassed by the present invention.

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In another embodiment, the present complementary compound is a compound which, apart from being capable of binding to an active site of LTA<sub>4</sub> hydrolase, is also capable of binding to an active site of LTC<sub>4</sub> synthase which binds the same substrate as LTA<sub>4</sub> hydrolase, i.e. LTA<sub>4</sub>, and turns it over into LTC<sub>4</sub> (cf. Fig 1) and

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is thus expected to share important structural features with the active site of LTA<sub>4</sub> hydrolase. Such a compound may be useful as an inhibitor of LTC<sub>4</sub> biosynthesis, whereby the production thereof may be regulated. Accordingly, any such LTC<sub>4</sub> synthase inhibitor, designed and/or identified using the coordinates of LTA<sub>4</sub> hydrolase, are also encompassed by the present invention.

The specific properties and advantageous uses of the present compounds as well as the design and production of novel LTA<sub>4</sub> hydrolase inhibitors will be described in further detail below in relation to the various methods.

#### 2.4.3 A complex of LTA<sub>4</sub> hydrolase and a complementary compound

In a third aspect, the present invention relates to an isolated complex comprised of a protein as described above and a compound complementary to said protein. Said complementary compound may thus be an inhibitor of one or more of the protein's enzymatic activities, such as an aminopeptidase and/or epoxide hydrolase activity, such as bestatin, hydroxamic acid or thiolamine, or leukotriene B<sub>4</sub> or any analogue thereof, or LTC<sub>4</sub> or any analogue thereof. Examples of complementary compounds are bestatin, thiolamine or hydroxamic acid. In the present context, it is to be understood that the invention also relates to specific regions of said inhibitors, that have never been specifically disclosed for the present purpose, as well as novel inhibitors identified by aid of the present invention. In specific embodiments, the complex according to the invention is composed of LTA<sub>4</sub> hydrolase complexed with bestatin, thiolamine or hydroxamic acid, respectively, as defined by the coordinates presented in Tables 9-11, or any functional fragment, derivative or analogue thereof. As bestatin is aminopeptidase based, further similar and advantageous inhibitors may be developed based on the structural information provided in Table 9, preferably combined with the specification of the binding site of Table 2. Further, as both thiolamine and hydroxamic acid are leukotriene based, the information provided in Tables 10 and 11, preferably combined with the specification of binding site of Table 3, will prove to be an advantageous tool in order to gain more infor-

mation about such enzymatic binding and thus the development of further novel inhibitors.

Accordingly, the present invention presents for the first time the coordinates defining the three-dimensional structure of a complex of LTA<sub>4</sub> hydrolase and an inhibitor thereof as determined by X-ray crystallography and illustrated in Tables 9-11. In fact, this is the first time ever to disclose any three-dimensional structure of a protein component of the leukotriene cascade. Due to these novel reliable parameters, the complex as well as the components thereof are readily distinguished from the prior art. Together with biochemical and mutagenetic data, the novel structures will provide the basis for understanding the molecular mechanisms of the aminopeptidase and epoxide hydrolase activities, as well as the enzyme's suicide inhibition. Accordingly, the present invention will open a whole range of new possibilities as regards e.g. identification and/or design of novel biologically active molecules and methods of controlling said cascade, *in vivo* or *in vitro*. Consequently, novel advantageous drugs, such as medicaments for the treatment and/or prevention of inflammatory and/or allergic diseases, may be designed, as will be discussed in further detail below.

In the present context, it is to be understood that proteins according to the invention include the naturally occurring three dimensional forms thereof, separated and isolated from its natural environments, as well as any such protein, wherein deletions, additions and/or substitutions of the amino acid sequence have been made, provided that the three dimensional structure is substantially maintained, as the exerted biological activity is critically dependent upon the particular three-dimensional folding of the protein. The present invention also encompasses any derivative or conformational analogue of the above disclosed proteins, which has a three-dimensional structure essentially as disclosed above, or an effective part thereof having the biological activities discussed in detail below.



2.4.4 Advantageous uses of LTA<sub>4</sub> hydrolase, complementary compounds and complexes thereof

A fourth aspect of the present invention is the use of a protein, a complementary compound or a complex according to the invention in drug design, such as in molecular modeling, direct structure-based design and/or combinatorial chemistry. Such methods will be disclosed in detail below. The drugs designed using the above mentioned compounds may be suitable for the treatment and/or prevention of disorders involving acute and chronic inflammatory symptoms, said disorder being selected from the group consisting of arthritis, inflammatory bowel disease (IBD), psoriasis, chronic obstructive pulmonary disease (COPD), and acquired immune deficiency syndrome (AIDS). Further, such a drug may be used for the treatment and/or prevention of proliferative disorders, such as neoplasias and/or cancer. Alternatively, a drug may be designed which is effective for the treatment and/or prevention of an inflammatory and/or allergic disorders caused by the lethal factor of *Bacillus anthracis*, e.g. anthrax. However, the above mentioned diseases are exemplary and other diseases or conditions not mentioned herein may also be contemplated.

In a further aspect, the present invention relates to the use of a protein having a structure substantially as defined for the LTA<sub>4</sub> hydrolase of the invention, or a part, analogue or derivative thereof, for screening a compound for possible medicinal activity. In the pharmaceutical industry, new or known compounds are routinely screened for new uses employing a variety of known *in vitro* or *in vivo* screens. Often such screens involve complex natural substances and are consequently expensive to carry out, and the results may be difficult to interpret. However, the knowledge of the three-dimensional protein structure according to the invention allows a preliminary screening to be carried out on the basis of the three-dimensional structure of a region thereof, and the structural similarity of a molecule which is being screened. Such screening can conveniently be carried out using computer modelling techniques, which match the three-dimensional structure of the protein or part thereof with the structure of the molecule being screened. Potential agonist or inhibitor activity may be predicted. As a result, the production efficiency, bioavail-

ability, immunogenicity, stability etc. may be favourably changed with respect to their therapeutic application.

As regards the above disclosed M1 inhibitors, these compounds will presumably find a broader field of application than the other novel inhibitors according to the invention. Thus, the novel general M1 inhibitors are advantageously used e.g. in models to disclose in further detail other enzymatic pathways. Further, they may also be used in the above mentioned type of methods of drug design etc.

#### 2.4.5 Screening for LTA<sub>4</sub> hydrolase analogues

##### 2.4.5 (a) Method

Accordingly, in another aspect, the invention relates to a method for screening LTA<sub>4</sub> hydrolase analogues that mimic at least a part of the three dimensional structure of LTA<sub>4</sub> hydrolase, which comprises the steps of

- (a) producing a multiplicity of analogue structures of the LTA<sub>4</sub> hydrolase
- (b) selecting an analogue structure represented by a three-dimensional representation wherein the three-dimensional configuration and spatial arrangement of specific regions, preferably involved in ligand binding of said LTA<sub>4</sub> hydrolase, remain substantially preserved.

The coordinates used are general for LTA<sub>4</sub> hydrolase are essentially as illustrated in Tables 9-11, as defined by atom nos 1-4876.

More specifically, analogue structures of LTA<sub>4</sub> hydrolase may be screened by their ability to catalyze a particular reaction which may be monitored by chemical physical or immunological means. Furthermore, the analogue structure may be selected from its ability to produce receptor ligands or inhibitors of secondary reactions, which may be monitored directly, as exemplified above, via binding assays, enzyme assays, chemical assays, or functional bioassays.

Thus, in one embodiment, the invention relates to a method of screening, wherein one or more analogues exhibiting epoxide hydrolase activity, are screened for. Thus, such a method may be primarily based on the data of Table 10 and 11, wherein the binding of thiolamine and hydroxamic acid to LTA<sub>4</sub> hydrolase is shown, preferably combined with the information of Table 3 regarding the active site of LTA<sub>4</sub> hydrolase. In one embodiment, the invention relates to a method of screening, wherein one or more analogues exhibiting epoxide hydrolase activity, are screened for. In an alternative embodiment, the present method is used to screen for analogues exhibiting aminopeptidase activity, which method is primarily based on the data of Table 9, wherein the binding of bestatin to LTA<sub>4</sub> hydrolase is shown, preferably combined with the information of Table 2 regarding the active site of LTA<sub>4</sub> hydrolase. Thus, the present analogues will comprise a region which is essentially analogue with the regions of LTA<sub>4</sub> hydrolase exhibiting aminopeptidase activity, and/or analogues exhibiting epoxide hydrolase activity are selected.

In an advantageous embodiment of the screening method according to the invention, one or more analogues comprising one or more genetic modifications, as compared to the naturally occurring form of LTA<sub>4</sub> hydrolase, are selected.

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#### 2.4.5 (b) Analogues obtainable by the present screening method

Further, the invention also relates to a novel analogue obtainable by the method according to the invention, such as an analogue exhibiting an increased or improved or otherwise modified catalytic activity when compared to the naturally occurring form of LTA<sub>4</sub> hydrolase. Preferably, said catalytic activity is an epoxide hydrolase and/or aminopeptidase activity. Further, the invention relates to an analogue obtainable by the present method and capable of acting as a metallohydrolase, preferably belonging to the M1 class of metallohydrolases.

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#### 2.4.5 (c) Mutated forms of LTA<sub>4</sub> hydrolase obtainable by the present screening method

In one advantageous embodiment, the present invention relates to a specified analogue which is a mutated form of LTA<sub>4</sub> hydrolase, which analogue comprises one or more of the mutations defined in the following Tables 5-7, wherein amino acids are given in single letter code. Thus, Q134G/A/V/L/I/S/T/D/E/N/R/H/K/P/C/M/F/Y/W  
 5 indicates that residue glutamine 134, using the LTA<sub>4</sub> hydrolase numbering scheme, is modified to an alanine, valine, a leucine and so forth.

Table 5: Mutations in the active site

10	Q134G/A/V/L/I/S/T/D/E/N/R/H/K/P/C/M/F/Y/W	5(1)
	Q136G/A/V/L/I/S/T/D/E/N/R/H/K/P/C/M/F/Y/W	5(2)
	A137G/V/L/I/S/T/D/E/N/Q/R/H/K/P/C/M/F/Y/W	5(3)
	Y267G/A/V/L/I/S/T/D/E/N/Q/R/H/K/P/C/M/F/W	5(4)
	G268A/V/L/I/S/T/D/E/N/Q/R/H/K/P/C/M/F/Y/W	5(5)
15	G269A/V/L/I/S/T/D/E/N/Q/R/H/K/P/C/M/F/Y/W	5(6)
	M270G/A/V/L/I/S/T/D/E/N/Q/R/H/K/P/C/F/Y/W	5(7)
	E271G/A/V/L/I/S/T/D/N/Q/R/H/K/P/C/M/F/Y/W	5(8)
	V292G/A/L/I/S/T/D/E/N/Q/R/H/K/P/C/M/F/Y/W	5(9)
	H295G/A/V/L/I/S/T/D/E/N/Q/R/K/P/C/M/F/Y/W	5(10)
20	E296G/A/V/L/I/S/T/D/N/Q/R/H/K/P/C/M/F/Y/W	5(11)
	H299G/A/V/L/I/S/T/D/E/N/Q/R/K/P/C/M/F/Y/W	5(12)
	W311G/A/V/L/I/S/T/D/E/N/Q/R/H/K/P/C/M/F/Y	5(13)
	F314G/A/V/L/I/S/T/D/E/N/Q/R/H/K/P/C/M/Y/W	5(14)
	W315G/A/V/L/I/S/T/D/E/N/Q/R/H/K/P/C/M/F/Y	5(15)
25	E318G/A/V/L/I/S/T/D/N/Q/R/H/K/P/C/M/F/Y/W	5(16)
	V322G/A/L/I/S/T/D/E/N/Q/R/H/K/P/C/M/F/Y/W	5(17)
	F362G/A/V/L/I/S/T/D/E/N/Q/R/H/K/P/C/M/Y/W	5(18)
	V367G/A/L/I/S/T/D/E/N/Q/R/H/K/P/C/M/F/Y/W	5(19)
	L369G/A/V/I/S/T/D/E/N/Q/R/H/K/P/C/M/F/Y/W	5(20)
30	I372G/A/V/L/S/T/D/E/N/Q/R/H/K/P/C/M/F/Y/W	5(21)

	P374G/A/V/L/I/S/T/D/E/N/Q/R/H/K/P/C/M/F/Y/W	5(22)
	D375G/A/V/L/I/S/T/E/N/Q/R/H/K/P/C/M/F/Y/W	5(23)
	A377G/V/L/I/S/T/D/E/N/Q/R/H/K/P/C/M/F/Y/W	5(24)
	Y378G/A/V/L/I/S/T/D/E/N/Q/R/H/K/P/C/M/F/W	5(25)
5	P382G/A/V/L/I/S/T/D/E/N/Q/R/H/K/P/C/M/F/Y/W	5(26)
	Y383G/A/V/L/I/S/T/D/E/N/Q/R/H/K/P/C/M/F/W	5(27)
	R563G/A/V/L/I/S/T/D/E/N/Q/H/K/P/C/M/F/Y/W	5(28)

More specifically, this embodiment relates to an analogue comprising any combination of at least two mutated amino acids, or any one of the above mentioned sequences of mutations, or any separate one amino acid mutation selected from the group consisting of sequences nos 1-9, 13-15, 17-24, 26 and 28, which are all novel mutations that have never been published before the present application. However, the other sequences not specified above are novel in the present context and thus such specific uses thereof are within the scope of the present invention.

Table 6: Mutations of the curved outside of the N-terminal domain

	R17 G/A/V/L/I/S/T/D/N/E/Q/H/K/P/C/M/F/Y/W	6(1)
20	K19 G/A/V/L/I/S/T/D/N/E/Q/R/H/P/C/M/F/Y/W	6(2)
	H20 G/A/V/L/I/S/T/D/N/E/Q/R/K/P/C/M/F/Y/W	6(3)
	H22 G/A/V/L/I/S/T/D/N/E/Q/R/K/P/C/M/F/Y/W	6(4)
	R24 G/A/V/L/I/S/T/D/N/E/Q/H/K/P/C/M/F/Y/W	6(5)
	D28 G/A/V/L/I/S/T/N/E/Q/R/H/K/P/C/M/F/Y/W	6(6)
25	T33 G/A/V/L/I/S/D/N/E/Q/R/H/K/P/C/M/F/Y/W	6(7)
	T35 G/A/V/L/I/S/D/N/E/Q/R/H/K/P/C/M/F/Y/W	6(8)
	G36/A/V/L/I/S/T/D/N/E/Q/R/H/K/P/C/M/F/Y/W	6(9)
	T37 G/A/V/L/I/S/D/N/E/Q/R/H/K/P/C/M/F/Y/W	6(10)
	A39 G/V/L/I/S/T/D/N/E/Q/R/H/K/P/C/M/F/Y/W	6(11)
30	T41 G/A/V/L/I/S/D/N/E/Q/R/H/K/P/C/M/F/Y/W	6(12)

	Q43 G/A/V/L/I/S/T/D/N/E/R/H/K/P/C/M/F/Y/W	6(13)
	K63 G/A/V/L/I/S/T/D/N/E/Q/R/H/P/C/M/F/Y/W	6(14)
	V65 G/A/L/I/S/T/D/N/E/Q/R/H/K/P/C/M/F/Y/W	6(15)
	N67 G/A/V/L/I/S/T/D/E/Q/R/H/K/P/C/M/F/Y/W	6(16)
5	N97 G/A/V/L/I/S/T/D/E/Q/R/H/K/P/C/M/F/Y/W	6(17)
	E99 G/A/V/L/I/S/T/D/N/Q/R/H/K/P/C/M/F/Y/W	6(18)
	V101 G/A/L/I/S/T/D/N/E/Q/R/H/K/P/C/M/F/Y/W	6(19)
	E103 G/A/V/L/I/S/T/D/N/Q/R/H/K/P/C/M/F/Y/W	6(20)
	S105 G/A/V/L/I/T/D/N/E/Q/R/H/K/P/C/M/F/Y/W	6(21)
10	E107 G/A/V/L/I/S/T/D/N/Q/R/H/K/P/C/M/F/Y/W	6(22)
	K153 G/A/V/L/I/S/T/D/N/E/Q/R/H/P/C/M/F/Y/W	6(23)
	T155 G/A/V/L/I/S/D/N/E/Q/R/H/K/P/C/M/F/Y/W	6(24)
	T157 G/A/V/L/I/S/D/N/E/Q/R/H/K/P/C/M/F/Y/W	6(25)
	E159 G/A/V/L/I/S/T/D/N/Q/R/H/K/P/C/M/F/Y/W	6(26)
15	S161 G/A/V/L/I/T/D/N/E/Q/R/H/K/P/C/M/F/Y/W	6(27)
	D175 G/A/V/L/I/S/T/N/E/Q/R/H/K/P/C/M/F/Y/W	6(28)
	E177 G/A/V/L/I/S/T/D/N/Q/R/H/K/P/C/M/F/Y/W	6(29)
	T178 G/A/V/L/I/S/D/N/E/Q/R/H/K/P/C/M/F/Y/W	6(30)
	D180 G/A/V/L/I/S/T/N/E/Q/R/H/K/P/C/M/F/Y/W	6(31)
20	R186 G/A/V/L/I/S/T/D/N/E/Q/H/K/P/C/M/F/Y/W	6(32)
	I188 G/A/V/L/I/S/T/D/N/E/Q/R/H/K/P/C/M/F/Y/W	6(33)
	K190 G/A/V/L/I/S/T/D/N/E/Q/R/H/P/C/M/F/Y/W	6(34)
	I192 G/A/V/L/I/S/T/D/N/E/Q/R/H/K/P/C/M/F/Y/W	6(35)
	K194 G/A/V/L/I/S/T/D/N/E/Q/R/H/P/C/M/F/Y/W	6(36)

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Table 7: Mutations at the proline rich region

	T359 G/A/V/L/I/S/D/N/E/Q/R/H/K/P/C/M/F/Y/W	7(1)
30	E358 G/A/V/L/I/S/T/D/N/Q/R/H/K/P/C/M/F/Y/W	7(2)

	D443 G/A/V/L/I/S/T/N/E/Q/R/H/K/P/C/M/F/Y/W	7(3)
	A446 G/V/L/I/S/T/D/N/E/Q/R/H/K/P/C/M/F/Y/W	7(4)
	Y449 G/A/V/L/I/S/T/D/N/E/Q/R/H/K/P/C/M/F/W	7(5)
	S450 G/A/V/L/I/T/D/N/E/Q/R/H/K/P/C/M/F/Y/W	7(6)
5	P451 G/A/V/L/I/S/T/D/N/E/Q/R/H/K/C/M/F/Y/W	7(7)
	G452 /A/V/L/I/S/T/D/N/E/Q/R/H/K/P/C/M/F/Y/W	7(8)
	L453 G/A/V/I/S/T/D/N/E/Q/R/H/K/P/C/M/F/Y/W	7(9)
	P454 G/A/V/L/I/S/T/D/N/E/Q/R/H/K/C/M/F/Y/W	7(10)
	P455 G/A/V/L/I/S/T/D/N/E/Q/R/H/K/C/M/F/Y/W	7(11)
10	I456 G/A/V/L/I/S/T/D/N/E/Q/R/H/K/P/C/M/F/Y/W	7(12)
	K457 G/A/V/L/I/S/T/D/N/E/Q/R/H/P/C/M/F/Y/W	7(13)
	P458 G/A/V/L/I/S/T/D/N/E/Q/R/H/K/C/M/F/Y/W	7(14)
	N459 G/A/V/L/I/S/T/D/E/Q/R/H/K/P/C/M/F/Y/W	7(15)
	Y460 G/A/V/L/I/S/T/D/N/E/Q/R/H/K/P/C/M/F/W	7(16)
15	D461 G/A/V/L/I/S/T/N/E/Q/R/H/K/P/C/M/F/Y/W	7(17)

#### 2.4.5 (d) Nucleic acids encoding the novel compounds

Further, the invention also relates to an isolated nucleic acid encoding a novel analogue as defined above, that is, including a combination of any at least two of said mutations or one of the novel mutations, as well as a nucleic acid capable of specifically hybridising to a such a nucleic acid. The conditions of specific hybridisation are defined above in the section "Definitions". Further, the invention also relates to any vector or carrier comprising such a nucleotide, such as plasmids, viral vectors, e.g. retrovirus, oligonucleotides etc. Thus, any cell including such a nucleic acid or vector are also within the scope of the present invention and may e.g. be a mammalian cell, such as a human cell, or any other eucaryotic cell, or a procaryotic cell, such as a bacterium. The above mentioned elements may be used in the design of model systems useful in the study of the diseases discussed elsewhere in this application, which systems may be cell cultures, animal models, such as mice, etc.

#### 2.4.6 (a) Production and purification of genetically modified forms of LTA<sub>4</sub> hydrolase

Yet another aspect of the present invention is a process for the production of a novel genetically modified form of LTA<sub>4</sub> hydrolase identified or designed according to the present invention. Thus, the present process involves, after conventional steps of insertion a gene encoding the desired product in a host cell and expression thereof, a purification procedure, which includes a hydroxyapatite-based chromatography and a subsequent anion exchange chromatography. These last two steps have been shown to be especially advantageous, in fact, even crucial, for obtaining a satisfying purity of the novel LTA<sub>4</sub> hydrolase forms according to the invention. The preceding steps are conventional as disclosed in literature and are easily performed by the skilled in this field.

Thus, in more detail, the invention relates to a method for purification of LTA<sub>4</sub> hydrolase comprised of (i) precipitation with ammonium sulphate, followed by (ii) separations on FPLC using anion exchange, hydrophobic interaction, and chromatofocusing resins, essentially as described (Wetterholm A., Medina J.F., Rådmark O., Shapiro R., Haeggström J.Z., Vallee B.L., Samuelsson B. *Biochim. Biophys. Acta* 1080, 96-102 (1991)). To achieve a purity suitable for crystallography, we used (iii) chromatography on hydroxyapatite, e.g., on a TSKgel HA-1000, Tosohaas, followed by (iv) a step of anion-exchange chromatography on e.g., Mono-Q HR5/5.

Further, example 4 below describes in detail a purification of LTA<sub>4</sub> hydrolase according to the invention. Said example may be generalised to describe further the purification according to the invention.

#### 2.4.6 (b) Purified LTA<sub>4</sub> hydrolase

Further, the invention also relates to an essentially pure form of LTA<sub>4</sub> hydrolase obtained by the process described above.



#### 2.4.7 Screening for LTA<sub>4</sub> hydrolase binding compounds

##### 2.4.7 (a) Method

In yet a further aspect, the present invention relates to a method for screening LTA<sub>4</sub> hydrolase binding compounds complementary to a region, preferably an enzymatically active site, e.g. as defined in Tables 1-3, of the LTA<sub>4</sub> hydrolase molecule, which comprises the steps of

(a) producing a multiplicity of possible complementary structures and

(b) selecting a structure represented by a three-dimensional representation, wherein the three-dimensional configuration and spatial arrangement of regions of LTA<sub>4</sub> hydrolase involved in binding remain substantially preserved, which selection is based on the three-dimensional structure of LTA<sub>4</sub> hydrolase and/or LTA<sub>4</sub> hydrolase complexed to an inhibitor thereof, as defined by the coordinates of Table 9, 10 or 11.

More specifically, the method according to the invention will advantageously be used to select compounds capable of inhibiting epoxide hydrolase activity and/or aminopeptidase activity, LTB<sub>4</sub> receptor antagonists or inhibitors of LTC<sub>4</sub> synthases or inhibitors of any member of the M1 class of metallohydrolases. In one preferred embodiment, general enzyme inhibitors are screened for, which inhibitors are useful in the control of any one of a plurality of enzymatic pathways, wherein a metallohydrolase of the M1 type is participating. These general metallohydrolase inhibitors are herein denoted M1 inhibitors.

##### *Structure-based design of inhibitors*

In a further embodiment, the present invention relates to a method of structure-based design of LTA<sub>4</sub> hydrolase inhibitors. Such methods are based on the use of the present coordinates, or preferably the coordinates defining a selected region, as templates in order to synthesize advantageous inhibitors with strong and specific binding properties. More specifically, said method first uses a conventional organic synthesis, alone or combined with combinatorial chemistry, wherein the structure of the product of the synthesis is then further refined by cycles of crystallisation of

enzyme and inhibitor, followed by another chemical synthesis, the product of which is again refined, etc.

Example 2 describes such a design, wherein it is noted that the removal of an extra carbon atom could yield a compound, which is a better inhibitor than this hydroxamic acid compound. Thus, similar conclusions will be drawn from the present method and result in inhibitors with superior properties compared to any prior art inhibitors.

#### 2.4.7 (b) Identified binding compounds

Further, the present invention also relates to any novel compounds identifiable by the present method. Advantageous and desired properties as well as other features of such compounds, e.g. as inhibitors, is discussed above in relation to complementary compounds, analogues etc. In one preferred embodiment of the invention, such an identified compound is an inhibitor of another M1 enzyme than LTA<sub>4</sub> hydrolase, such as . The medicinal aspects of the present compounds will be discussed below.

#### 2.4.8 Protein engineering

##### 2.4.8 (a) Method

In a further aspect, the present invention relates to a method of engineering a protein, which method comprises the steps of

- identification of a suitable set of mutation sites based on the structure of LTA<sub>4</sub> hydrolase according to the invention,
  - generation of a library of genes which contains the suitable sequence variations;
  - selection of clones encoding a LTA<sub>4</sub> hydrolase analogue with a desired activity;
- wherein said desired activity is the capability of efficiently producing organic compounds of interest.

The present method is based on recent techniques available for generating large libraries of mutated genes (>1 billion variants) which can be attributed to a selection process of individual genes in the laboratory. Such directed evolution schemes have

enormous potential for the design of new proteins, including new substrate specificity for enzymes as well as improving enzyme activities.

Directed evolution, or combinatorial engineering schemes have been successfully applied in evolving RNA molecules with improved binding and catalytic activities (Lorsch and Szostak, 1994). Also binding proteins (and peptides) with good affinities can now routinely be evolved based on a range of different protein folds (Nord et al, 1997). The present methods may be used to perform such a directed evolution of advantageous enzyme activity and specificity and may be performed by someone skilled in this field with reference to the literature, see e.g. O. Kuchner and F. H. Arnold (1997); A. Cramer, S.A. Raillard, E. Bermudez and W.P.C. Stemmer (1998).) In this context, see also the descriptions provided in US patent no 5 873 082, Noguchi, wherein a list processing system for managing and processing lists of data is disclosed; US patent no 5 869 295, LaBean et al., disclosing methods and materials for producing gene libraries; and US patent no 5 856 928, disclosing a process for gene and protein representation, characterization and interpretation thereof.

In general, major difficulties in this kind of process are to search the sequence space: find the suitable sequence variations for a large but limited number of mutations (for the same protein fold an immense number of variations can be made e.g. 10 residues protein,  $20^{100}$  variants are in theory possible). It is therefore very important to identify the residues in the protein structure which could effect the activity the most, i.e. the residues near the active site area. Thus, in order to enable a successful performance of a method for engineering proteins with properties relevant in the present field, the data disclosed above, more specifically, in Tables 2-4, is crucial.

Further references which are relevant in the context of protein engineering are K. Nord, E. Gunneriusson, J. Ringdahl, S. Stahl, M. Uhlen, P.A. Nygren (1997): "Binding proteins selected from combinatorial libraries of an alpha-helical bacterial receptor domain", *Nature Biotechnology*, 15, 772-777 (1997); R. Lorsch and J.W.

- Szostak (1994): "In vitro evolution of new ribozymes with polynucleotide kinase activity", *Nature*, 371, 31-36; A. Crameri, S.A. Raillard, E. Bermudez and W.P.C. Stemmer (1998): "DNA shuffling of a family of genes from diverse species accelerates directed evolution", *Nature*, 391, 288-291; and O. Kuchner and F. H. Arnold (1997): "Directed evolution of enzyme catalysts", *Trends in Biotechnology*, 15, 523-530.

In an advantageous embodiment, the present method is used to engineer LTA<sub>4</sub> hydrolase inhibitors and/or analogues. In a specific embodiment of said method, a compound capable of mimicking the suicidal mode of LTA<sub>4</sub> hydrolase catalysis, thus acting as a mechanism-based suicide inhibitor, or otherwise capable of regulating the production of LTB<sub>4</sub> is engineered. In an alternative embodiment, an inhibitor of LTC<sub>4</sub> synthase or an LTB<sub>4</sub> receptor antagonist is designed.

2.4.8 (b) Novel specifically designed proteins

Further, the present invention also relates to any novel protein designed by use of the above described method. Once specified, such proteins may be produced by any conventional method well known to the skilled in this field, some of which are exemplified below. In Example 2 below, the binding of hydroxamic acid to LTA<sub>4</sub> hydrolase is discussed. Thus, such a modified hydroxamic is one example of a novel inhibitor specifically designed according to the invention, and the reasoning in the example may be used as a basis for the way of reasoning that is used in the present design.

Accordingly, novel enzymes may be produced, which are capable of any different chemical activity. For example, enzymes capable of novel catalytic properties, enzymes that in turn produce enzymes, etc., may be produced according to the present invention.

2.4.8 (c) Use of genetically modified LTA<sub>4</sub> hydrolase

The invention also encompasses the use of a genetically modified LTA<sub>4</sub> hydrolase, obtained by any method according to the invention, with altered catalytic properties, e.g., increased ability to synthesize LTB<sub>4</sub>. The modified enzyme may thus be used for production of LTB<sub>4</sub>, or any analogues substances, a biomedical reagent which in turn may be used in, e.g., studies of leukotriene metabolism, induction of chemotaxis, as a reference compound in analysis of leukotrienes etc.

#### 2.4.9 Pharmaceutical applications of the present invention

##### 2.4.9 (a) First medical indication

Further, the invention also encompasses a compound obtainable by the method of screening LTA<sub>4</sub> hydrolase binding compounds or the protein engineering methods described above, and more preferably, said compound for use as a medicament. One specifically advantageous embodiment is the herein disclosed novel M1 inhibitor for use as a medicament.

In an advantageous embodiment, the present compounds are used in the manufacture of a medicament for the treatment and/or prevention of acute and chronic inflammatory disorders, said disorder being selected from the group consisting of arthritis, inflammatory bowel disease (IBD), psoriasis and chronic obstructive pulmonary disease (COPD); neoplasias and/or cancer; or disorders caused by the lethal factor of *Bacillus anthracis*, e.g. anthrax. Alternatively, the use may relate to the manufacture of a medicament for the treatment and/or prevention of an inflammatory and/or allergic disorder, such as bronchial asthma, allergic rhinitis, conjunctivitis etc. Yet an alternative use is in the manufacture of a medicament for the treatment and/or prevention of infection caused by human immunodeficiency virus (HIV). The novel M1 inhibitor are preferably used in medicaments for the treatment and/or prevention of such various diseases as cancer and/or endocrinological disturbances.

#### 2.4.9 (b) Second medical indication and pharmaceutical methods

Thus, the present invention relates to the above mentioned molecules prepared by the method according to the invention for use in the manufacture of various medicaments for the above defined conditions. The invention also encompasses pharmaceutical preparations containing these molecules together with pharmaceutically acceptable carriers. Methods for the preparation of pharmaceutical preparations are e.g. found in Remington's Pharmaceutical Sciences, Mack Publishing Company, Philadelphia, PA, 17<sup>th</sup> ed. (1985). For a review of drug delivery, see Langer, Science 249:1527-1533 (1990). As those skilled in this field easily realise, the form of such a pharmaceutical preparation, the mode of administration thereof as well as suitable dosages will depend on the specific disease to be treated, the nature of the active substance used, the patient's age, body weight etc.

#### 2.4.9 c) Methods of treatment

The present invention also encompasses any method of treatment for the above defined purposes. Exact details regarding such methods are determined by the practitioner depending on the specific circumstances from case to case.

#### 2.5 Production of novel molecules

The compounds, which may be proteins, polypeptides, peptides or any other organic molecules, prepared according to the methods according to the invention may be synthesized chemically by methods well known to those of skill in this field or they may be prepared by use of recombinant DNA technology by any suitable method well known to those of skill in this field. General methods of synthesis are e.g. found in Berger and Kimmel, Guide to Molecular Cloning Techniques, Methods in Enzymology, vol. 152, Academic Press, Inc., San Diego, CA; Sambrook et al., Molecular Cloning, A Laboratory Manual, 2<sup>nd</sup> Ed., vol. 1-3, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, 1989; and Current Protocols in Molecular Biology, F.M. Ausbel et al., Current Protocols (1994). Methods of reducing and denaturing proteins and inducing re-folding are well known to those of skill in the art, see e.g. Debinski et al., J. Biol. Chem., 268: 14065-14070 (1993); Kreitman and Pastan,

Bioconjug. Chem., 4: 581-585 (1993); and Buchner et al., Anal. Biochem., 205: 263-270 (1992).

## 2. 6 Detailed description of the drawings

5 Figure 1 shows key enzymes and intermediates in leukotriene biosynthesis.

Figure 2 shows 2Fo-Fc density contoured at 1.1  $\sigma$ . Part of the active site in the neighborhood of the bestatin molecules is shown. Figures are created using a modified version of Molscript48,49.

Figure 3 is a ribbon diagram of the tertiary structure of LTA4 hydrolase. The N-  
10 terminal domain at the top of the diagram is rich in  $\beta$ -strands and connects to the catalytic domain to the left in the figure which is more  $\alpha$ -helical and extends into the central part of the molecule. The C-terminal domain, illustrated at the bottom of the ribbon diagram, extends towards the right side of the catalytic domain.

Figure 4 (a) is a ribbon diagram of the N-terminal domain with its layers of  $\beta$ -  
15 strands, while (b) is a superimposition of the C $\alpha$  trace of the N-terminal domain on the C $\alpha$  trace of bacteriochlorophyll *a*. The N-terminal domain covers approx. half of the bacteriochlorophyll *a* structure (the right and bottom part of the diagram).

Figure 5 (a) is a ribbon diagram of the catalytic domain. In the center of the diagram, the three zinc binding ligands, His295, His299, and Glu318, as well as the inhibitor bestatin are depicted in ball and stick representation. The zinc ion is shown  
20 as a CPK model. The diagram in (b) shows the structure of thermolysin in the same orientation as the catalytic domain of LTA4 hydrolase. The three zinc ligands, His142, His146, and Glu166, as well as the inhibitor Cbz-GlyP-(O)-Leu-Leu50 are depicted in ball-and stick representation. The zinc ion is shown as a CPK model.

25 Figure 6 shows the structure of the C-terminal domain.

Figure 7 shows the zinc binding ligands in LTA4 hydrolase, His295, His299, and Glu318, superimposed on those in thermolysin, His142, His146, and Glu-166. Other catalytic or neighboring residues in the two enzymes are Tyr383, Glu325, Glu296, Thr302, and Asn317 in LTA4 hydrolase which correspond to His231, Asp170,  
30 Glu143, Asn165, and Tyr157 in thermolysin.

Figure 8 (a) is a Ball-and-Stick presentation of the binding of bestatin in LTA4 hydrolase.

Figure 8 (b) is a schematic overview of bestatin binding in LTA4 hydrolase.

Figure 9 (a) is a wire representation of the cavity found in LTA4 hydrolase (shown as C $\alpha$ -trace).

Figure 9 (b) is a schematic presentation for the proposed binding of LTA4 into the cavity.

Figure 10 is a schematic representation for the proposed epoxide hydrolase reaction mechanism. The catalytic zinc acts as a Lewis acid and activates the epoxide to form a carbocation intermediate according to an S<sub>N</sub>1 reaction. Water is added at C12 in a stereospecific manner, presumably directed by Asp375. The double bond geometry is controlled by the binding conformation of LTA4. Further details are given elsewhere in the present description.

### 3. EXPERIMENTAL

The following examples are intended for illustrating purposes only and should not in any way be used to construe the scope of the protection of the present invention as defined by the appended claims. All the references given below, and previously in this specification, are hereby included herein by reference.

#### 3.1 Examples

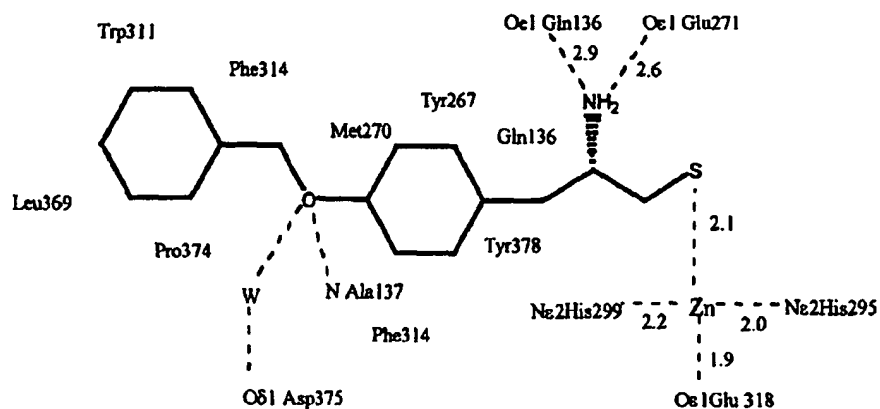
##### Example 1: Binding of the thiol-compound (I)

The thiol group of the compound is ligated to the Zn<sup>2+</sup> ion, that has a tetra-hedral configuration. Both the phenyl-groups are making extensive hydrophobic interactions. The first one makes aromatic stacking interactions with Phe314 and Trp311. Further hydrophobic interactions are made with Pro374 and Leu369. The other phenyl ring is making stacking interactions with Tyr267 and Tyr378. Met270 and Gln136 provide additional hydrophobic interactions. The ether-oxygen in the linker



between the two phenyl rings makes a hydrogen bond to the backbone nitrogen of Ala137 and also with a water molecule which is linked to Asp375. The amine group makes interactions to the Oε1 of Gln136 and the Oε1 of Glu271.

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Formula (I)

### Example 2: Binding of the hydroxamic acid compound (II)

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The binding of this compound is very similar to the binding of the thiol compound described above. The manner in which the phenyl-moieties, the linker region and the amine group are bound is identical. The manner in which the hydroxamic acid part is bound is different in comparison with other complexes such as thermolysin-HA complexes and LTA<sub>4</sub>-hydrolase-bestatin complex. Instead of a double interaction of the hydroxyl and carbonyl oxygens and the Zn ion resulting in a pentavalent co-ordination, here only one of the oxygens (the hydroxyl) is making an interaction with the Zn ion giving a tetrahedral co-ordination. The other oxygens make an interaction to Asp296 and the backbone nitrogen of Gly268. This difference is probably due to the tight binding of the phenyl rings and the amine group. The linkage between the amine group and the hydroxamic acid group contains one more carbon atom than in a normal or modified peptide-linkage. Since the binding site for substrates is

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performed by programs from CCP4 and the BIOMOL packages. The refinement procedures for both datasets were very similar. First rigid body refinement using TNT was performed. As a starting model for refinement and model building the structure of LTA4 hydrolase complexed with bestatin was used. The bestatin molecule and all water molecules were deleted from the model. After this initial refinement it was possible to build the inhibitors into the protein. For evaluation of the density maps and model-building the program QUANTA (Molecular Simulations Inc., Burlington, MA) was used. The refinement was continued using TNT and was combined with sessions of model-building. In all rounds no sigma cut-offs were used and the resolution was slowly increased during the procedure. Water molecules were identified and incorporated into the models. During these procedures the  $R_{\text{free}}$  was carefully monitored. When refinement had converged, it was finished with one round in which all reflections, including those who were used for the calculations of the  $R_{\text{free}}$ , were incorporated. Statistics about refinement and quality of the models can be found in Table 5.

Table: Statistics of refinement and quality of the model

	Thiolamine (Thiol)	Hydroxamic acid (HA)
Resolution	15-2.5Å	15-1.8Å
Rfactor	17.8%	24.2%
Rfree	24.4	29.7%
Bond Lengths	0.011Å	0.012Å
Angles	1.9°	2.0°
Trigonal groups	0.005Å	0.006Å
Planar groups	0.009Å	0.010Å
Contacts	0.026Å	0.041Å

No. of waters	252	127
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#### Example 4: Purification of LTA<sub>4</sub> hydrolase.

- 5 For adsorption chromatography on hydroxyapatite, a TSKgel HA-1000 column (Tosohaas) was equilibrated in 10 mM potassium phosphate buffer, pH 7.1, supplemented with 0.2 mM CaCl<sub>2</sub>. The enzyme sample was applied and a linear gradient of increasing phosphate (10 - 400 mM) was developed by mixing the starting buffer with 400 mM potassium phosphate buffer, pH 6.8, supplemented with 10  $\mu$ M
- 10 CaCl<sub>2</sub>. Active fractions containing LTA<sub>4</sub> hydrolase were eluted between 150 - 190 mM potassium phosphate.

- Anion exchange chromatography was performed on a Mono-Q HR 5/5 column (Pharmacia Biotech) equilibrated with the loading buffer 10 mM Tris-Cl, pH 8. The
- 15 pure protein was eluted using a linear gradient of KCl (0 - 500 mM) and was recovered at 110 - 140 mM KCl.

#### Example 5: Enzyme engineering

- The present inventors have shown, that when Tyr-378 in LTA<sub>4</sub> hydrolase was ex-
- 20 changed for a Phe residue, the resulting mutated enzyme was no longer suicide inhibited by LTA<sub>4</sub> and exhibited a substantially increased catalytic efficiency. Furthermore, the mutated enzyme was capable of converting LTA<sub>4</sub> not only into the natural product LTB<sub>4</sub>, but also into a novel metabolite, 6-*trans*-8-*cis*-LTB<sub>4</sub>.
- (Mueller, M.J., *et al. Proc Natl Acad Sci U S A* 93, 5931-5935 (1996)).

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#### Example 6: Enzyme-engineering

Tyr-383 in mouse LTA<sub>4</sub> hydrolase was exchanged for Gln residue, which resulted in a mutated enzyme capable of forming the unnatural product 5S, 6S-dihydroxy-

7,9-*trans*-11,14-*cis*-eicosatetraenoic acid from LTA<sub>4</sub> (Andberg, M., Hamberg, M. & Haeggstrom, J.Z. *J. Biol. Chem.* 272, 23057-23063 (1997)).

#### Example 7: Crystallisation of LTA<sub>4</sub> hydrolase

5 LTA<sub>4</sub> hydrolase was crystallised using YbCl<sub>3</sub> as an additive, 15% PEG and 50 mM Na-acetate as precipitant and 50 mM imidazole, pH 6.7, as buffer. Liquid-liquid-diffusion in capillaries were used as crystallisation set-ups.

#### 3.2 Materials and Methods

10 *Enzyme purification.* Human recombinant LTA<sub>4</sub> hydrolase was expressed in *E. coli* and purified to homogeneity in four chromatographic steps on FPLC using anion exchange, hydrophobic interaction, chromatofocusing, and hydroxyapatite resins, essentially as described (Wetterholm A., Medina J.F., Rådmark O., Shapiro R., Haeggström J.Z., Vallee B.L., Samuelsson B. Recombinant mouse leukotriene A<sub>4</sub>  
15 hydrolase: a zinc metalloenzyme with dual enzymatic activities. *Biochim. Biophys. Acta.* 1080, 96-102 (1991)).

*Crystallization conditions.* The chemicals used for the crystallization experiments were purchased from Merck and were of highest purity available. The sparse matrix  
20 kit was obtained from Hampton Research. Crystallization conditions for the protein were initially sought by using the sparse matrix approach (Jancarik, J. & Kim, S.-H. *J. Appl. Crystallogr.* 24, 409-411 (1991)) in hanging drop vapor diffusion set-ups in cell culture plates at room temperature. Under condition 28, (30% PEG8000, 0.2 M sodium-acetate, 0.1 M cacodylate buffer, pH 6.5) needles grew. They were sub-  
25 sequently reproduced and optimized using a finer grid search, different temperatures for the equilibration and testing of additives. Crystals were only obtained when the inhibitor bestatin was present in the crystallization set-ups. Using YbCl<sub>3</sub> as an additive and switching to liquid-liquid diffusion in capillaries, allowed plate-like crystals to grow. Thus, 5 µl 28% PEG8000, 0.1 mM Na-acetate, 0.1 mM imidazole  
30 buffer, pH 6.8, 5 mM YbCl<sub>3</sub> is injected into the bottom of a melting point capillary

and an equal volume of LTA4 hydrolase (5 mg/ml) in 10 mM Tris-Cl, pH 8, supplemented with 1 mM bestatin, is layered on top. Finally, the capillary is closed and stored at 22°C. Crystals with an average size of  $0.6 \times 0.4 \times 0.05 \text{ mm}^3$  appear in 3 to 4 weeks.

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*Crystal properties.* The plate-like crystals diffract beyond  $2\text{\AA}$  using synchrotron radiation. They belong to space-group P21212 with cell dimensions  $a = 67.59 \text{ \AA}$ ,  $b = 133.51 \text{ \AA}$ ,  $c = 83.40 \text{ \AA}$ ,  $a = b = c = 90^\circ$  at 100K. As a cryo-solution, a mixture of 15%PEG 8000, 50 mM Na-acetate, 50 mM imidazole buffer, pH 6.8, 2.5 mM YbCl<sub>3</sub>, and 25% glycerol was used. Assuming one molecule per asymmetric unit the solvent content of the crystals is 48%.

*Structure determination.* The structure was determined by using multiple anomalous dispersion measurements on the LIII edge of Ytterbium ( $\lambda = 1.3862 \text{ \AA}$ ) at beam line BM14 at the European Synchrotron Radiation Facility (ESRF), Grenoble. Three datasets, peak (PK), point of inflection (PI) and remote (RM), were collected to 2.5Å resolution from the same crystal. The crystal was aligned such that Bijvoet equivalent reflections could be collected in one pass of  $90^\circ$  for each wavelength. For RM a subsequent dataset to 2.15Å was collected. A second crystal was used for obtaining a dataset to 1.95Å. (For statistics on data-collection and quality, see table 1). Data were integrated using the program Denzo, scaled to each other using Scalepack (Otwinowski, Z. *Data collection and Processing. Proceedings of the ccp4 study weekend. SERC Daresbury Laboratory, Warrington, UK.*, 56-62 (1993)) and further analyzed using programs from the CCP4 package (Collaborative Computing Project Number 4. *Acta Crystallogr. Sect. D* 50, 760-763 (1994)).

From Patterson functions one major and one minor Yb position could readily be identified, a third position was identified during heavy atom refinement in difference Fourier maps. The heavy atom parameters were refined using MLPHARE (Otwinowski, Z. *Isomorphous replacement anomalous scattering. Proceedings of*

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the CCP4 study weekend. SERC Daresbury Laboratory, Warrington, UK. , 80-85 (1991)) and SHARP (de La Fortelle, E. & Bricogne, G. *Met. Enzymol.* 276, 472-494 (1997)). The final figures of merit was 0.57 to 2.15Å. Phase information was further improved to 2.15Å by solvent flattening using SOLOMON (Abrahams, J.P. & Leslie, A.G.W. *Acta Crystallographica D* 52, 30-42 (1996)) with a solvent content of 43%. The quality of the maps was very good and the entire protein molecule (residue 1-610) could be traced unambiguously. All model building was performed using QUANTA (Molecular simulations). Refinement was started by a run of slow-cooling molecular dynamics in XPLOR (Brünger, A.T., Kuriyan, J. & Karplus, M. *Science* 235, 458-460 (1987)) using the RM dataset to 2.7Å. The three Yb ions were included into the refinement with full occupancy for the first Yb and half occupancy for the two other ions. All subsequent refinement was performed with TNT (Tronrud, D.E., ten Eyk, L.F. & Matthews, B.W. *Acta Crystallogr. Sect. A* 43, 481-501 (1987)). The same set of reflections (4% of total amount from 25-1.95Å) for the calculation of  $R_{\text{free}}$  (Brünger, A.T. *Nature* 355, 472-475 (1992)) was maintained throughout all refinement procedures. The resolution was slowly improved by alternating sessions of model-building and refinement. The data for the second crystal to 1.95Å were used for further refinement during which a Zn ion, bestatin, an acetate and an imidazole molecule were identified. Judged from the B-factors these molecules are all fully occupied. 540 water molecules were added to the coordinates. The  $R_{\text{free}}$  was 24.7% and the working R-factor was 18.8% for all data between 25-1.95 Å. In a final round of refinement all data between 25-1.95 Å were included, yielding a final R-factor of 18.5 % for residues 1-610, 3 Yb ions, 1 Zn, 1 bestatin, 1 imidazole, 1 acetate and 540 water molecules. Most of the model is in good density (Fig. 2) except a loop encompassing residues 179 to 184 for which only poor density was obtained. The model has good stereo-chemical parameters (r.m.s bonds = 0.010Å, r.m.s angles = 2.2°) and 91.7% of the residues lie in the most favored part of the Ramachandran plot.

#### 4. RESULTS AND DISCUSSION

#### 4.1 Overall structure and domain organization

The leukotriene A<sub>4</sub> hydrolase molecule is folded into three domains; an N-terminal domain, a catalytic domain and a C-terminal domain which together form a flat triangular arrangement with approximate dimensions of 85 x 65 x 50 Å<sup>3</sup>. The overall structure of the enzyme is depicted in figure 3. Although the three domains pack closely and make contact with each other, a deep cleft is formed in between.

#### 4.2 The N-terminal domain is structurally related to bacteriochlorophyll *a*

The N-terminal domain (residue 1-209) is composed of one 7 stranded mixed  $\beta$ -sheet, one 4 and one 3 stranded antiparallel  $\beta$ -sheet. Strands from the larger  $\beta$ -sheet continue into the two smaller  $\beta$ -sheets that pack on the edges of the same side of the larger sheet so that a kind of envelope is formed (Fig. 4a & b). The two small  $\beta$ -sheets are turned towards the inside of the whole protein while the larger  $\beta$ -sheet is exposed to solvent and forms a large concave surface area. Loops connecting the other strands and hydrophobic residues fill the core of this domain. The N-terminal domain of LTA<sub>4</sub> hydrolase shares important structural features with the chlorophyll-containing enzyme bacteriochlorophyll (Bchl) *a* (Matthews, B., Fenna, R., Bolognesi, M., Schmid, M. & Olson, J. *J. Mol. Biol.* 131, 259-285 (1979)). Thus, 111 C $\alpha$  positions have equivalent positions in the two proteins despite the absence of any sequence identity (Fig. 4b). The domain is about half the size of Bchl *a* which has a single domain structure without major extensions. Like Bchl *a*, the shape of the N-terminal domain resembles an envelope (or Taco) with a hollow inside and in Bchl *a*, 7 bacteriochlorophylls are buried in this cavity. However, the domain is not as hollow as Bchl *a* since loop 135-155, which contains a small helical segment, is turned inwards and fills up the core. In Bchl *a* the equivalent loop (290-305) is positioned more towards the exterior of the protein, thereby leaving space for some of the tetrapyrroles of the bacteriochlorophylls. The large sheet (17 strands) of Bchl *a* is truncated to only 7 strands in LTA<sub>4</sub> hydrolase. Especially the region between residue 35 and 263 of Bchl *a* has been replaced by a much shorter region in LTA<sub>4</sub> hydrolase (res. 45 to 98) that forms the 3 stranded small  $\beta$ -sheet and



the edge strand of the larger 7 stranded  $\beta$ -sheet. The structure of the other half of the molecule is almost completely conserved, except the insertion of two extra strands instead of loops in LTA4 hydrolase. The structural homology between Bchl  $\alpha$ , a protein involved in light harvesting, and LTA4 hydrolase was certainly unexpected. In LTA4 hydrolase, the function of the N-terminal domain is not yet known, but one may speculate that it participates in binding to hydrophobic molecules or surfaces with a possible regulatory function. In mammalian 15-lipoxygenase, a similar function was proposed for an N-terminal  $\beta$ -barrel domain with structural homology to a corresponding C-terminal domain in mammalian lipases (Gillmor, S.A., Villasenor, A., Fletterick, R., Sigal, E. & Browner, M.F. *Nature Struc. Biol.* 4, 1003-1009 (1997)).

The connection from the N-terminal to the catalytic domain is very short, a strand from the 4 stranded  $\beta$ -sheet connects into a strand of a 5-stranded anti-parallel  $\beta$ -sheet of the catalytic domain. The two sheets are closely packed and the interface is mainly hydrophobic in character with 14 hydrophobic residues contributing from the N-terminal domain and 11 from the catalytic domain. Hydrogen bonds occur between Gln116 and Ser264, Ser124 and Gln226, the backbone of Ser124 and Glu223, the backbone of Ser151 and Lys309, Lys153 and the backbone of Leu305 and indirectly through a water molecule between Tyr130 and the backbone of Val260. Two salt-bridges between His139 and Asp375 and between Arg174 and Asp257 complete the interactions made in this interface.

#### 4.3 The catalytic domain contains the zinc binding site and is structurally similar to thermolysin

The structure of the catalytic domain (res. 210-450) is surprisingly similar to the structure of thermolysin (Fig. 5a & b) (Holmes, M. & Matthews, B. *J. Mol. Biol.* 160, 623-639 (1982)). When the amino acid sequence in this domain was compared with that of thermolysin, the sequence identity was found to be very low (essentially confined to the zinc binding motifs). However, the structural homology stretches out

over the whole domain. Thus, no less than 146 Ca positions overlap with an r.m.s. deviation of 1.946 Å. Like thermolysin, the catalytic domain consists of two lobes, one mainly  $\alpha$ -helical and one mixed  $\alpha/\beta$  lobe. The  $\alpha$ -lobe consists of 6 major helices interconnected by long loops containing smaller helical segments, while the  $\alpha/\beta$  lobe has a 5 stranded mixed  $\beta$ -sheet lined with 3 helices on one side. The zinc binding site is found in between the two lobes. Since this domain contains only 245 amino acids and thermolysin contains 314 residues, some truncations have taken place, especially in the  $\alpha/\beta$  lobe in which the N-terminal extended  $\beta$  structure is truncated and only a mixed 5 stranded  $\beta$ -sheet remains. The changes in the  $\alpha$ -lobe are smaller. Here the long meandering loop 181 to 221 has been replaced by a long  $\alpha$ -helix and the  $\beta$ -hairpin from 245 to 258 has been deleted.

A loop in extended conformation on the surface of the protein from 451 to 463 connects the catalytic domain with the C-terminal domain. Interestingly, this segment contains a highly conserved proline rich motif P451-G-f-P-P-x-K-P-x-Y460 which bears some resemblance to an SH3 domain recognition sequence. However, the canonical arginine residue is not present on either side of the proline motif. Nevertheless, since this stretch of amino acids is exposed on the surface of the protein, it is still possible that it could serve as an anchoring site for protein-protein interactions.

The C-terminal domain (464-610) is composed of 9  $\alpha$ -helices that form an unusual coil of helices reminiscent of the ones found in lytic transglycosylase<sup>40</sup> and recently in the armadillo repeat region of  $\beta$ -catenin (Huber, A.H., Nelson, W.J. & Weis, W.I. *Cell* 90, 871-882 (1997)) (Fig. 6). The helices pack into two layers of parallel helices (5 inner and 4 outer helices) and in an anti-parallel manner between the two layers. The arrangements found in the two other proteins are much larger and form super-helical structures. In the C-terminal domain of LTA4 hydrolase, the arrangement is more straight and has a very compact shape. One of the helices is deformed and one of the interconnecting loops is long and contains a small  $3_{10}$  helix. The domain makes contacts with both the  $\alpha$ -lobe of the catalytic domain and one of the

edges of the N-terminal domain. It is positioned in a way such that the helices lie perpendicular to the 7 stranded b-sheet of the N-terminal domain and to most of the helices in the catalytic domain. The helices are amphipatic in character, with the hydrophobic sides towards the middle of the domain and hydrophilic residues pointing towards the solvent and into the deep cleft in the middle of the whole molecule. This side of the cleft is highly polar; 10 Arg and Lys residues and 4 Asp and Glu residues are positioned on this side.

#### 4.4 Zinc coordination

The immediate surroundings of the active site  $Zn^{2+}$  ion are very similar in thermolysin and LTA4 hydrolase. The  $Zn^{2+}$  is bound between the two lobes and is coordinated by His295, His299, one carboxylic oxygen of Glu318 and the carbonyl and hydroxyl oxygens of the inhibitor bestatin so that a square based pyramid is formed. The two histidines originate from a long  $\alpha$ -helix and the glutamate from a neighboring  $\alpha$ -helix, all in the a-lobe. Glu296 and Tyr383, two residues implicated in the reaction mechanism for the peptide cleaving activity, are located near the Zn ion. Glu296, the putative general base, is positioned next to the metal ligand His295 and bends over the bestatin molecule and Tyr383, which was described as a proton donor, also makes contact with the bestatin molecule (Figure 8a).

Interestingly, the second layer around the Zn ion shows differences between thermolysin and LTA4 hydrolase. In both enzymes the orientation of the zinc binding ligands is fixed by hydrogen bonds, however the hydrogen bond acceptors are positioned differently. In thermolysin, the Nd1 of His142 is hydrogen bonded to the Od2 of Asp170, while in LTA4 hydrolase the Nd1 of His295 is hydrogen bonded to the Oe1 of Glu325. This residue comes from a structural equivalent to the helix carrying Asp170 in thermolysin, but is shifted half a turn outwards. The Nd1 of His146 in thermolysin is hydrogen bonded to the Od1 of Asn165. This residue is part of the zinc binding signature and is conserved between the two enzymes. However, in LTA4 hydrolase the helix in which this conserved residue is placed has been rotated

slightly and Asn317 is no longer making a hydrogen bond to His299. The orientation of His299 is now fixed by a hydrogen bond from the Nd1 to the carbonyl backbone oxygen of Thr302. The Od1 of Asn317 makes instead a hydrogen bond to the backbone amide of Asn381 while the Nd2 makes a hydrogen bond to the hydroxyl group of Tyr200. The last protein-ligand, Glu166 is in thermolysin hydrogen bonded to Tyr157 and a water molecule, in LTA4 hydrolase, Glu318 is only hydrogen bonded to a water molecule (Fig. 7).

#### 4.5 Bestatin binding

Although the zinc binding site is formed by residues only from the catalytic domain and most catalytic residues also come from this domain, the active site itself is surrounded by loops from all three domains. The binding of bestatin reflects this, since it makes interactions with residues from all three domains. The main interactions of bestatin are made through the carbonyl and hydroxyl oxygens to the Zn atom. Hydrophobic interactions are made between the phenyl moiety and the phenyl rings of Tyr267, Phe316, Tyr378 and Tyr383. Also, Met270 and Gln136 are involved (Fig. 8a). The other end of the inhibitor is pointing towards the solvent, the leucine moiety makes interactions with Val292 and His295, while the carboxylic oxygens make interactions with Arg563 and Lys565 through water molecules as well as hydrogen bonds to the backbone nitrogen atoms of Gly268 and Gly269. Hydrogen bonds are formed between the peptidyl N of bestatin and Oe2 of Glu296 and between the terminal NH<sub>2</sub> and the Oe1 of Glu271 and Oe1 of Gln136. The hydroxyl oxygen makes apart from the interaction with the Zn ion also an interaction to the OH of Tyr383. (For schematic overview see Fig. 8b). Tyr378 which gets modified during suicide inactivation sits slightly further away, but makes a hydrogen bond to Tyr383 and some hydrophobic interactions with the phenyl ring of the inhibitor. These two tyrosine are both found on the same stretch of amino-acids that in thermolysin form a long a helix, however in leukotriene hydrolase this helix is interrupted and two turns of the helix are replaced by three residues (378-380) in an extended conformation. The binding of bestatin is quite different as was found in the complex between bes-

tatin and bovine lens leucine amino-peptidase (bLLAP) (Burley, S., David, P., Sweet, R., Taylor, A. & Lipscomb, W. *J. Mol. Biol.* 224, 113-140 (1992)). In that complex, bestatin was bound to the Zn by both the terminal nitrogen and the nonproteinaceous P1 hydroxyl oxygen, while in LTA4 hydrolase the bestatin is bound by the hydroxyl and carbonyl oxygens. The terminal nitrogen is involved in hydrogen bonding to Glu271 and Gln136. These differences could stem from the fact the bLLAP is a bimetal protein with a different reaction mechanism. Moreover the binding of bestatin as seen in LTA4 hydrolase is similar with the complexes formed between thermolysin and hydroxamates which also act as bidentate ligands by the hydroxyl and carbonyl oxygens (Holmes, M. & Matthews, B. *Biochemistry* 20 (1981)).

Behind the pocket in which the phenyl ring of bestatin binds, there is a cavity that stretches 15 Å deeper into the protein and is approximately 6 to 7 Å wide. In the present structure this cavity is filled with water molecules. It has however a very hydrophobic nature and is lined with Trp311, Phe314, Trp315, Phe362, Leu365, Val367, Leu369, Pro374, Ala377, Tyr378, and Pro382. Most of these residues are strictly conserved or conserved in nature in all LTA4 hydrolase sequences known up until now, with the exception of Val367, which is replaced by a Gln in the yeast and *C. elegans* sequences. Interestingly space for this cavity is partly created by the interruption by the extended conformation in the stretch where Tyr378 and Tyr383 are found. One patch of this binding site is quite hydrophilic with Asn134, Asp375 and the OH of Tyr267 clustering together. This bigger cavity could be a binding site for the LTA4 substrate molecule. If the epoxide moiety would bind in a similar way as the carbonyl oxygen of bestatin to the Zn ion, then the hydrophobic tail would fit snugly into the binding site now occupied by the phenyl group of bestatin and would continue into the deeper hydrophobic cavity (Fig. 9a). The other tail would sit in the pocket that is now occupied by the carboxy group of bestatin and it would be long enough for the carboxylic acid to make direct electrostatic interactions with the conserved Arg563 and Lys565.

The replacement of Val367 by Gln as seen in the enzyme from yeast would make the hydrophobic channel shorter and this might be one of the reasons why the yeast enzyme does not have leukotriene A<sub>4</sub> epoxide hydrolase activity. The manner in which the leukotriene molecule would bind is similar as what is proposed for binding of arachidonic acid in 15-lipoxygenase (Gillmor, S.A., Villasenor, A., Fletterick, R., Sigal, E. & Browner, M.F. *Nature Struc. Biol.* 4, 1003-1009 (1997)) with the hydrophobic end buried inside the protein and the carboxylic acid more towards the surface making interactions with Arg and Lys residues.

The binding of bestatin acts also as a guide for the binding of peptide substrate molecules. From systematic binding studies with tri-peptides it was shown that the enzyme has a strong preference for an arginine residue as the N-terminal residue and for several tri-peptides the enzyme has a *k<sub>cat</sub>/K<sub>m</sub>* ratio 10-fold the *k<sub>cat</sub>/K<sub>m</sub>* for LTA<sub>4</sub> (Örning, L., Gierse, J.K. & Fitzpatrick, F.A. *J. Biol. Chem.* 269, 11269-11273 (1994). If we roughly model a peptide in the active site with an N-terminal Arg with the carbonyl oxygen sitting on the place of the hydroxyl group of bestatin, then the Arg side-chain of this residue would sit in the same place as the phenyl group of the bestatin with the guanidinium headgroup interacting with the conserved Asp375 and the OH of Tyr267 and the more hydrophobic C<sub>b</sub>, C<sub>d</sub> and C<sub>g</sub> atoms making similar interactions as the phenyl ring. The terminal aminogroup could make the same electrostatic interaction as the terminal aminogroup of bestatin with Asp271 and Gln136. This mode of binding of bestatin is in contrast with the mode proposed by Örning, since the phenyl ring seems to occupy the S1 pocket. We also propose that the LTA<sub>4</sub> substrate molecule is occupying all three pockets, S1, S'1 and S'2.

If the binding mode of peptides in LTA<sub>4</sub> hydrolase is compared with the one described for thermolysin, a number of differences are observed. In thermolysin, the peptide molecule is held in place by many interactions to the main chain atoms pro-

vides by Asn112, Ala203, Arg203 and Trp115. None of these residues or equivalent residues can be found in the binding site in LTA4 hydrolase. Furthermore, although binding pockets S1 and S'1 are at similar positions as in thermolysin, site S'2 has to be different since its space is occupied by Tyr378 in LTA4 hydrolase. Glu271 and Gln136 and the N-terminal domain are filling up the space into which in thermolysin the upstream peptide binds contributing to the exo-peptidase function instead of an endo-peptidase function as in thermolysin.

#### 4.6 Putative Phosphorylation site

Recently specific phosphorylation by a yet unknown specific kinase of Ser415 has been described as means of regulation of LTA4 hydrolase activity in endothelial cells (Rybina, I.V., Liu, H., Gor, Y. & Feinmark, S.J. *J Biol Chem* 272, 31865-71 (1997)). This residue is conserved in all mammalian LTA4 hydrolases and is embedded in a highly homologous stretch of residues. Phosphorylation of this residue seems to inhibit the epoxide hydrolase activity but not the amino-peptidase activity. In the structure this residue is located in a loop connecting two  $\alpha$ -helices that lie on the surface of the molecule. The loop itself is located at the back of the enzyme.

#### 4.7 Aminopeptidase activity

The amino-peptidase activity catalyzed by this enzyme has been well studied and many of the important residues have been target for site-directed mutagenesis work. This lead to a proposal in which Glu296 would act as a general base (Wetterholm, A., *et al. Proc Natl Acad Sci U S A* 89, 9141-9145 (1992)) and Tyr383 as a putative proton donor (Blomster, M., Wetterholm, A., Mueller, M.J. & Haeggström, J.Z. *Eur. J. Biochem.* 231, 528-534 (1995)). In the current complex, these residues are involved in hydrogen bonds with the bestatin molecule. If bestatin binding is seen as a rough analog for the transition state binding, then the interaction of Glu296 with the hydroxyl oxygen of bestatin indicates that this residue could indeed activate a water-molecule for the nucleophilic attack. The role of Tyr383 cannot so easily be confirmed, however its position strongly suggest the role of proton donor. In ther-

- molysin the proton donor is His231 and although the Ca position of this residue is 4.1Å removed from the Ca position of Tyr383 in LTA4 hydrolase, the Nd1 is only 1 Å removed from the OH position of Tyr383. The conserved Glu271 could be involved in the exo-protease activity of the protein. Recently, the analogous Glu350 in
- 5 aminopeptidase N and Glu352 in aminopeptidase A were subject to site-directed mutagenesis work (Luciani, N., *et al. Biochemistry* 37, 686-692 (1998); and Vazeux, G., Iturriz, X., Corvol, P. & Llorenz-Cortez, C. *Biochem. J.* 334, 407-413 (1998)) and it was observed that mutations of this residue lead to large decreases in the activity in the case of substitutions by conserved amino-acids such as aspartate
- 10 and glutamine and absence of activity in substitution by alanine. It was concluded that Glu350 belonged to the anionic binding site in that protein. A mechanism based on thermolysin was proposed for aminopeptidase N with a pentavalent transition state with an additional interaction between the free α-aminogroup and Glu350. In this structure we can observe such an interaction between Glu271 and the free amino-
- 15 ngroup of bestatin. Furthermore the penta-valent coordination of Zn by the His295, His299, Glu318 and the carbonyl and hydroxyl groups of bestatin indicates that this is an equivalent transition state analog complex as determined previously for thermolysin.
- 20 From careful sequence alignments and structural insight we can conclude that the enzymes in the M1 family of proteases will share a highly conserved catalytic domain that includes part of the N-terminal domain as we see it in LTA4 hydrolase and the thermolysin-like domain. There is no homology for residues in the C-terminal domain and we believe that this domain is unique for LTA4 hydrolases.
- 25 We suggest that all proteases belonging to class M1 with the signature HExxH and a Glu 18 residues downstream will function in a similar way to thermolysin.

#### 4.8 Epoxide hydrolase activity

- Concerning the epoxide hydrolase activity, much less is known about the functional
- 30 elements and mechanisms of catalysis. In fact, the prosthetic zinc is the only critical



- component identified thus far and may potentially assist in the introduction of a water molecule at C12 or in the activation of the epoxide. Although Tyr378 and Tyr383 are important active side residues, none of them is essential for catalysis. A mutation of Tyr378 to Phe protects the enzyme against suicide inhibition, however
- 5 the specificity of the double bond configuration is partly lost (Mueller, M., Andberg, M., Samuelsson, B. & Haeggstrom, J. *J. Biol. Chem.* 271, 24345-24348 (1996)) since a novel metabolite with a cis-trans-cis conjugated system can be detected. Thus, Tyr378 is a major binding site for LTA<sub>4</sub> during suicide inactivation and seems to play a role for the formation of the correct double bond geometry in
- 10 the product LTB<sub>4</sub>. Mutations of Tyr383 abolish the amino-peptidase activity where it has a role as potential proton donor (*vide supra*) but the epoxide hydrolase activity is only decreased compared to wild-type. It is however implicated in the stereospecific introduction of water during the hydrolysis of LTA<sub>4</sub> to LTB<sub>4</sub> since these mutants convert LTA<sub>4</sub> in both LTB<sub>4</sub> and 5 [S],6 [S]-DHETE (Andberg, M.,
- 15 Hamberg, M. & Haeggstrom, J. *J. Biol. Chem.* 272, 23057-23063 (1997)). Moreover careful analysis of the catalytic properties of enzymes mutated in pos. 383, viz [Y383F], [Y383H] and [Y383Q]LTA<sub>4</sub> hydrolase have indicated that the epoxide hydrolase reaction follows an S<sub>N</sub>1 mechanism.
- 20 If one considers the chemistry carried out by LTA<sub>4</sub> hydrolase, the enzyme has two major tasks during the hydrolysis of LTA<sub>4</sub> to LTB<sub>4</sub>. First introduction of a water molecule stereospecific at C12 and second to generate a *cis*-double bond Δ<sup>6</sup> in the resulting conjugated triene system [cf. Fig. 1]. If LTA<sub>4</sub> is modeled into the putative substrate binding pocket as indicated in figure 9b, the catalytic zinc gets close to the
- 25 epoxide and not C12 of the substrate. Therefore the most likely role of the Zn ion is to act directly as a Lewis acid to activate and open the epoxide ring. This would generate a carbocation, whose charge will be delocalised over the conjugated triene system from C7 to C12. Since this intermediate has an *sp*<sup>2</sup> hybridized planar configuration at C12, it is in principle open for nucleophilic attack from either side of
- 30 the molecule. The conserved Asp375 is positioned in such a way that a water mole-

cule bound to it is in "attacking" distance of C12 of a modeled LTA4 molecule, the position into which a hydroxyl group is inserted during the reaction. This will account for the proper stereo-chemical and positional insertion of the hydroxyl-group at C12 in *R* configuration.

5

The shape and curvature of the LTA4 binding pocket also gives a clue as to how the enzyme creates the *cis* double bond at  $\Delta 6$ . Since there is free rotation between the c6 and c7 of LTA4, this bond may be kept in a "pro-*cis*" configuration in the transition state, which in turn would facilitate the formation of a  $\Delta 6$ -*cis* double bond form the carbocation intermediate. If LTA4 is modeled in this way, the entire molecule adopts a bent shape, fitting very well with the architecture of the binding pocket (Fig. 9b). Hence, the critical double bond geometry at  $\Delta 6$  of LTB4 is probably guaranteed by the exact binding conformation of LTA4 at the active side which in turn is governed by all the structural elements participating in substrate binding, including the carboxylate recognition sites, Arg56 and Lys565, the catalytic zinc and the hydrophobic residues lining the pocket. The putative binding cleft for the leukotriene molecule is narrow and bend and thereby favoring LTA4 over other epoxides. The two tyrosines are positioned such that they are in contact with the triple double bond configuration of a modeled LTA4 molecule at the bent of the putative binding pocket and they are hydrogen-bonded to each other. Therefore their position is ideal for guidance in stereo-specificity of the double bond configuration. The loss of specificity for the hydroxyl-incorporation at the C12 position in case of the Tyr383 position can be explained that mutations at this position would possibly create extra space for a water molecule that could attack at the C6 position and thereby form 5 [S],6 [S]-DHETE.

25

The position of Tyr378 is such that it is in contact with the C6 atom of the modeled LTA4 molecule. If after opening of the epoxide ring the hydroxyl group of Tyr378 instead of a water molecule would attack the carbon-cation at the C6 position, a covalently attached molecule is formed which forms the suicide inhibited complex. In

30

order to check this hypothesis and to obtain more information about the binding-site for leukotriene A<sub>4</sub>, the structure of this inhibited species would be essential.

5 In order to exclude the possibility that residues near the active site might have further catalytic roles in the epoxide hydrolase reaction, a thorough investigation of these residues, such as Glu271 and Gln136 has to be started. Furthermore the proposed role of Asp375 in activating a water molecule for the stereospecific attack at C12 has to be investigated.

10 Accordingly, the present invention has solved the first specific leukotriene converting enzyme, which for the first time reveals the binding mode for leukotriene molecules. Furthermore, insight is provided in a unique active site that harbours two activities using different amino-acids to catalyze different reactions.

Pat 590226

5. SEQUENCE LISTING

&lt;110&gt; Haeggström, Jesper J.Z., et al

5

<120> DRUG DESIGN BASED ON THE STRUCTURE OF LTA<sub>4</sub> HYDROLASE

&lt;130&gt; 54660

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&lt;140&gt;

&lt;141&gt;

&lt;160&gt; 1

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&lt;170&gt; PatentIn Ver. 2.1

&lt;210&gt; 1

&lt;211&gt; 611

&lt;212&gt; PRT

20

&lt;213&gt; HUMAN

&lt;220&gt;

<223> AMINO ACID SEQUENCE OF HUMAN LEUKOTRIENE A<sub>4</sub>  
HYDROLASE

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&lt;400&gt; 1

Met Pro Glu Ile Val Asp Thr Cys Ser Leu Ala Ser Pro Ala Ser Val

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Cys Arg Thr Lys His Leu His Leu Arg Cys Ser Val Asp Phe Thr Arg

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25

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Arg Thr Leu Thr Gly Thr Ala Ala Leu Thr Val Gln Ser Gln Glu Asp

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Asn Leu Arg Ser Leu Val Leu Asp Thr Lys Asp Leu Thr Ile Glu Lys

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60

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Val Val Ile Asn Gly Gln Glu Val Lys Tyr Ala Leu Gly Glu Arg Gln

65

70

75

80

Ser Tyr Lys Gly Ser Pro Met Glu Ile Ser Leu Pro Ile Ala Leu Ser

85

90

95

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Lys Asn Gln Glu Ile Val Ile Glu Ile Ser Phe Glu Thr Ser Pro Lys

	100	105	110
	Ser Ser Ala Leu Gln Trp Leu Thr Pro Glu Gln Thr Ser Gly Lys Glu		
	115	120	125
5	His Pro Tyr Leu Phe Ser Gln Cys Gln Ala Ile His Cys Arg Ala Ile		
	130	135	140
	Leu Pro Cys Gln Asp Thr Pro Ser Val Lys Leu Thr Tyr Thr Ala Glu		
10	145	150	155 160
	Val Ser Val Pro Lys Glu Leu Val Ala Leu Met Ser Ala Ile Arg Asp		
	165	170	175
15	Gly Glu Thr Pro Asp Pro Glu Asp Pro Ser Arg Lys Ile Tyr Lys Phe		
	180	185	190
	Ile Gln Lys Val Pro Ile Pro Cys Tyr Leu Ile Ala Leu Val Val Gly		
20	195	200	205
	Ala Leu Glu Ser Arg Gln Ile Gly Pro Arg Thr Leu Val Trp Ser Glu		
	210	215	220
	Lys Glu Gln Val Glu Lys Ser Ala Tyr Glu Phe Ser Glu Thr Glu Ser		
25	225	230	235 240
	Met Leu Lys Ile Ala Glu Asp Leu Gly Gly Pro Tyr Val Trp Gly Gln		
	245	250	255
30	Tyr Asp Leu Leu Val Leu Pro Pro Ser Phe Pro Tyr Gly Gly Met Glu		
	260	265	270
	Asn Pro Cys Leu Thr Phe Val Thr Pro Thr Leu Leu Ala Gly Asp Lys		
35	275	280	285
	Ser Leu Ser Asn Val Ile Ala His Glu Ile Ser His Ser Trp Thr Gly		
	290	295	300
	Asn Leu Val Thr Asn Lys Thr Trp Asp His Phe Trp Leu Asn Glu Gly		
40	305	310	315 320
	His Thr Val Tyr Leu Glu Arg His Ile Cys Gly Arg Leu Phe Gly Glu		
	325	330	335
45	Lys Phe Arg His Phe Asn Ala Leu Gly Gly Trp Gly Glu Leu Gln Asn		
	340	345	350

Ser Val Lys Thr Phe Gly Glu Thr His Pro Phe Thr Lys Leu Val Val  
 355 360 365

5 Asp Leu Thr Asp Ile Asp Pro Asp Val Ala Tyr Ser Ser Val Pro Tyr  
 370 375 380

Glu Lys Gly Phe Ala Leu Leu Phe Tyr Leu Glu Gln Leu Leu Gly Gly  
 385 390 395 400

10 Pro Glu Ile Phe Leu Gly Phe Leu Lys Ala Tyr Val Glu Lys Phe Ser  
 405 410 415

Tyr Lys Ser Ile Thr Thr Asp Asp Trp Lys Asp Phe Leu Tyr Ser Tyr  
 15 420 425 430

Phe Lys Asp Lys Val Asp Val Leu Asn Gln Val Asp Trp Asn Ala Trp  
 435 440 445

20 Leu Tyr Ser Pro Gly Leu Pro Pro Ile Lys Pro Asn Tyr Asp Met Thr  
 450 455 460

Leu Thr Asn Ala Cys Ile Ala Leu Ser Gln Arg Trp Ile Thr Ala Lys  
 465 470 475 480

25 Glu Asp Asp Leu Asn Ser Phe Asn Ala Thr Asp Leu Lys Asp Leu Ser  
 485 490 495

Ser His Gln Leu Asn Glu Phe Leu Ala Gln Thr Leu Gln Arg Ala Pro  
 30 500 505 510

Leu Pro Leu Gly His Ile Lys Arg Met Gln Glu Val Tyr Asn Phe Asn  
 515 520 525

35 Ala Ile Asn Asn Ser Glu Ile Arg Phe Arg Trp Leu Arg Leu Cys Ile  
 530 535 540

Gln Ser Lys Trp Glu Asp Ala Ile Pro Leu Ala Leu Lys Met Ala Thr  
 545 550 555 560

40 Glu Gln Gly Arg Met Lys Phe Thr Arg Pro Leu Phe Lys Asp Leu Ala  
 565 570 575

Ala Phe Asp Lys Ser His Asp Gln Ala Val Arg Thr Tyr Gln Glu His  
 45 580 585 590

Lys Ala Ser Met His Pro Val Thr Ala Met Leu Val Gly Lys Asp Leu  
595 600 605

5 Lys Val Asp  
610

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## 6. CONFORMATIONAL DATA

Table 9: Structure coordinates of LTA<sub>4</sub> hydrolase-bestatin complex

5	CRYST1	67.585	133.510	83.400	90.00	90.00	90.00		
	ORIGX1	1.000000	0.000000	0.000000			0.000000		
	ORIGX2	0.000000	1.000000	0.000000			0.000000		
	ORIGX3	0.000000	0.000000	1.000000			0.000000		
	SCALE1	0.014796	0.000000	0.000000			0.000000		
	SCALE2	0.000000	0.007490	0.000000			0.000000		
	SCALE3	0.000000	0.000000	0.011990			0.000000		
10									
		Atom	res.	Chain No.	x	y	z	occ	B-factor
15	ATOM	1	N	PRO A	1	-2.496	16.950	65.263	1.00100.00
	ATOM	2	CA	PRO A	1	-1.236	17.634	65.508	1.00 99.43
	ATOM	3	C	PRO A	1	-1.279	19.127	65.159	1.00 99.95
	ATOM	4	O	PRO A	1	-0.289	19.676	64.664	1.00100.00
	ATOM	5	CB	PRO A	1	-0.177	16.885	64.670	1.00100.00
	ATOM	6	CG	PRO A	1	-0.850	15.680	64.020	1.00100.00
20	ATOM	7	CD	PRO A	1	-2.318	15.723	64.426	1.00 99.22
	ATOM	8	N	GLU A	2	-2.412	19.789	65.446	1.00 90.69
	ATOM	9	CA	GLU A	2	-2.616	21.205	65.132	1.00 88.44
	ATOM	10	C	GLU A	2	-1.945	22.313	65.960	1.00 86.73
25	ATOM	11	O	GLU A	2	-2.129	22.438	67.174	1.00 88.87
	ATOM	12	CB	GLU A	2	-4.088	21.530	64.831	1.00 89.80
	ATOM	13	CG	GLU A	2	-4.228	22.312	63.514	1.00 95.02
	ATOM	14	CD	GLU A	2	-3.125	21.962	62.559	1.00100.00
	ATOM	15	OE1	GLU A	2	-2.011	22.486	62.601	1.00 70.64
	ATOM	16	OE2	GLU A	2	-3.487	21.008	61.722	1.00 83.56
30	ATOM	17	N	ILE A	3	-1.177	23.171	65.274	1.00 73.36
	ATOM	18	CA	ILE A	3	-0.495	24.292	65.914	1.00 69.05
	ATOM	19	C	ILE A	3	-1.215	25.619	65.639	1.00 60.01
	ATOM	20	O	ILE A	3	-1.489	25.975	64.480	1.00 56.74
	ATOM	21	CB	ILE A	3	1.014	24.323	65.649	1.00 73.58
35	ATOM	22	CG1	ILE A	3	1.560	25.747	65.693	1.00 73.27
	ATOM	23	CG2	ILE A	3	1.360	23.656	64.319	1.00 79.61
	ATOM	24	CD1	ILE A	3	3.062	25.814	65.946	1.00 75.66
	ATOM	25	N	VAL A	4	-1.530	26.333	66.734	1.00 46.96
40	ATOM	26	CA	VAL A	4	-2.266	27.598	66.688	1.00 41.58
	ATOM	27	C	VAL A	4	-1.472	28.880	66.873	1.00 30.92
	ATOM	28	O	VAL A	4	-0.723	29.061	67.838	1.00 28.33
	ATOM	29	CB	VAL A	4	-3.441	27.614	67.680	1.00 45.38
	ATOM	30	CG1	VAL A	4	-4.362	28.831	67.511	1.00 44.59
	ATOM	31	CG2	VAL A	4	-4.271	26.359	67.495	1.00 45.63
45	ATOM	32	N	ASP A	5	-1.727	29.798	65.947	1.00 22.16
	ATOM	33	CA	ASP A	5	-1.139	31.105	66.027	1.00 21.88
	ATOM	34	C	ASP A	5	-2.103	31.939	66.842	1.00 25.15
	ATOM	35	O	ASP A	5	-3.064	32.490	66.346	1.00 21.09
50	ATOM	36	CB	ASP A	5	-0.915	31.761	64.661	1.00 21.53
	ATOM	37	CG	ASP A	5	-0.170	33.040	64.836	1.00 21.15
	ATOM	38	OD1	ASP A	5	-0.200	33.672	65.879	1.00 23.73
	ATOM	39	OD2	ASP A	5	0.484	33.404	63.754	1.00 18.74
	ATOM	40	N	THR A	6	-1.812	32.004	68.122	1.00 22.87
55	ATOM	41	CA	THR A	6	-2.614	32.733	69.039	1.00 17.86
	ATOM	42	C	THR A	6	-2.468	34.218	68.837	1.00 25.17
	ATOM	43	O	THR A	6	-3.013	35.005	69.583	1.00 32.74
	ATOM	44	CB	THR A	6	-2.366	32.263	70.467	1.00 28.19
	ATOM	45	OG1	THR A	6	-0.986	32.305	70.759	1.00 31.35
	ATOM	46	CG2	THR A	6	-2.827	30.824	70.556	1.00 24.61
60	ATOM	47	N	CYS A	7	-1.756	34.657	67.824	1.00 19.01
	ATOM	48	CA	CYS A	7	-1.687	36.105	67.594	1.00 18.86
	ATOM	49	C	CYS A	7	-2.514	36.534	66.364	1.00 27.36
	ATOM	50	O	CYS A	7	-2.589	37.717	66.031	1.00 24.81



	ATOM	51	CB	CYS	A	7	-0.244	36.638	67.389	1.00	19.56
	ATOM	52	SG	CYS	A	7	0.817	36.357	68.834	1.00	23.65
	ATOM	53	N	SER	A	8	-3.077	35.572	65.619	1.00	28.38
	ATOM	54	CA	SER	A	8	-3.820	35.920	64.408	1.00	25.64
5	ATOM	55	C	SER	A	8	-5.279	35.549	64.559	1.00	25.67
	ATOM	56	O	SER	A	8	-5.622	34.573	65.244	1.00	20.89
	ATOM	57	CB	SER	A	8	-3.286	35.203	63.175	1.00	27.58
	ATOM	58	OG	SER	A	8	-4.110	35.477	62.050	1.00	26.21
10	ATOM	59	N	LEU	A	9	-6.127	36.354	63.928	1.00	23.57
	ATOM	60	CA	LEU	A	9	-7.555	36.054	64.006	1.00	24.90
	ATOM	61	C	LEU	A	9	-8.006	35.381	62.706	1.00	26.66
	ATOM	62	O	LEU	A	9	-9.114	34.912	62.612	1.00	28.44
	ATOM	63	CB	LEU	A	9	-8.411	37.332	64.224	1.00	22.92
	ATOM	64	CG	LEU	A	9	-8.092	38.121	65.494	1.00	24.11
15	ATOM	65	CD1	LEU	A	9	-8.997	39.353	65.644	1.00	25.94
	ATOM	66	CD2	LEU	A	9	-8.302	37.203	66.698	1.00	16.04
	ATOM	67	N	ALA	A	10	-7.137	35.392	61.699	1.00	23.67
	ATOM	68	CA	ALA	A	10	-7.378	34.838	60.373	1.00	20.08
	ATOM	69	C	ALA	A	10	-7.559	33.342	60.324	1.00	23.49
20	ATOM	70	O	ALA	A	10	-7.321	32.597	61.261	1.00	22.41
	ATOM	71	CB	ALA	A	10	-6.365	35.297	59.334	1.00	18.72
	ATOM	72	N	SER	A	11	-8.066	32.886	59.190	1.00	26.45
	ATOM	73	CA	SER	A	11	-8.239	31.460	59.014	1.00	27.04
	ATOM	74	C	SER	A	11	-6.821	30.862	58.977	1.00	19.63
25	ATOM	75	O	SER	A	11	-5.931	31.368	58.288	1.00	20.98
	ATOM	76	CB	SER	A	11	-8.972	31.228	57.683	1.00	34.23
	ATOM	77	OG	SER	A	11	-10.377	31.332	57.861	1.00	36.98
	ATOM	78	N	PRO	A	12	-6.609	29.777	59.689	1.00	20.69
	ATOM	79	CA	PRO	A	12	-5.293	29.146	59.759	1.00	23.75
30	ATOM	80	C	PRO	A	12	-4.838	28.466	58.479	1.00	32.70
	ATOM	81	O	PRO	A	12	-5.628	28.213	57.566	1.00	34.79
	ATOM	82	CB	PRO	A	12	-5.378	28.124	60.898	1.00	24.49
	ATOM	83	CG	PRO	A	12	-6.850	27.923	61.197	1.00	26.79
	ATOM	84	CD	PRO	A	12	-7.620	28.984	60.422	1.00	18.71
35	ATOM	85	N	ALA	A	13	-3.542	28.158	58.424	1.00	28.05
	ATOM	86	CA	ALA	A	13	-2.958	27.522	57.254	1.00	26.23
	ATOM	87	C	ALA	A	13	-3.575	26.147	56.955	1.00	22.95
	ATOM	88	O	ALA	A	13	-3.463	25.623	55.868	1.00	25.46
	ATOM	89	CB	ALA	A	13	-1.432	27.511	57.312	1.00	24.61
40	ATOM	90	N	SER	A	14	-4.227	25.555	57.935	1.00	21.79
	ATOM	91	CA	SER	A	14	-4.840	24.254	57.758	1.00	23.68
	ATOM	92	C	SER	A	14	-6.239	24.371	57.129	1.00	32.59
	ATOM	93	O	SER	A	14	-6.977	23.401	56.944	1.00	34.73
	ATOM	94	CB	SER	A	14	-4.921	23.533	59.102	1.00	26.34
45	ATOM	95	OG	SER	A	14	-5.722	24.269	60.022	1.00	28.63
	ATOM	96	N	VAL	A	15	-6.632	25.589	56.814	1.00	28.74
	ATOM	97	CA	VAL	A	15	-7.913	25.838	56.183	1.00	29.68
	ATOM	98	C	VAL	A	15	-7.714	26.415	54.790	1.00	28.85
	ATOM	99	O	VAL	A	15	-8.284	25.983	53.793	1.00	30.55
50	ATOM	100	CB	VAL	A	15	-8.736	26.750	57.064	1.00	33.16
	ATOM	101	CG1	VAL	A	15	-9.867	27.390	56.256	1.00	32.75
	ATOM	102	CG2	VAL	A	15	-9.232	25.957	58.267	1.00	30.08
	ATOM	103	N	CYS	A	16	-6.856	27.406	54.714	1.00	22.64
	ATOM	104	CA	CYS	A	16	-6.559	28.009	53.440	1.00	25.21
55	ATOM	105	C	CYS	A	16	-5.237	28.693	53.559	1.00	29.42
	ATOM	106	O	CYS	A	16	-4.779	28.929	54.690	1.00	29.35
	ATOM	107	CB	CYS	A	16	-7.621	28.958	52.872	1.00	29.68
	ATOM	108	SG	CYS	A	16	-7.936	30.421	53.895	1.00	35.74
	ATOM	109	N	ARG	A	17	-4.637	28.959	52.405	1.00	23.28
60	ATOM	110	CA	ARG	A	17	-3.332	29.581	52.397	1.00	27.42
	ATOM	111	C	ARG	A	17	-3.224	30.603	51.288	1.00	29.92
	ATOM	112	O	ARG	A	17	-3.516	30.317	50.133	1.00	30.00
	ATOM	113	CB	ARG	A	17	-2.205	28.555	52.227	1.00	23.72
	ATOM	114	CG	ARG	A	17	-2.233	27.401	53.201	1.00	21.97

5	ATOM	115	CD	ARG	A	17	-1.407	26.256	52.647	1.00	23.54
	ATOM	116	NE	ARG	A	17	-0.812	25.328	53.619	1.00	61.25
	ATOM	117	CZ	ARG	A	17	-1.432	24.397	54.351	1.00	74.57
	ATOM	118	NH1	ARG	A	17	-2.727	24.196	54.302	1.00	81.15
	ATOM	119	NH2	ARG	A	17	-0.734	23.629	55.172	1.00	66.19
10	ATOM	120	N	THR	A	18	-2.752	31.787	51.640	1.00	19.72
	ATOM	121	CA	THR	A	18	-2.591	32.805	50.644	1.00	16.81
	ATOM	122	C	THR	A	18	-1.334	32.493	49.887	1.00	26.15
	ATOM	123	O	THR	A	18	-0.323	32.299	50.512	1.00	28.80
	ATOM	124	CB	THR	A	18	-2.466	34.204	51.296	1.00	25.57
15	ATOM	125	OG1	THR	A	18	-3.626	34.537	52.038	1.00	29.77
	ATOM	126	CG2	THR	A	18	-2.186	35.291	50.261	1.00	23.47
	ATOM	127	N	LYS	A	19	-1.361	32.518	48.568	1.00	23.41
	ATOM	128	CA	LYS	A	19	-0.185	32.210	47.806	1.00	21.13
	ATOM	129	C	LYS	A	19	0.459	33.389	47.154	1.00	22.88
20	ATOM	130	O	LYS	A	19	1.643	33.365	46.806	1.00	26.65
	ATOM	131	CB	LYS	A	19	-0.542	31.198	46.727	1.00	29.31
	ATOM	132	CG	LYS	A	19	-1.357	30.002	47.207	1.00	38.67
	ATOM	133	CD	LYS	A	19	-0.856	29.376	48.505	1.00	83.39
	ATOM	134	CE	LYS	A	19	0.228	28.313	48.317	1.00	100.00
25	ATOM	135	NZ	LYS	A	19	0.082	27.127	49.186	1.00	95.09
	ATOM	136	N	HIS	A	20	-0.334	34.419	46.949	1.00	19.69
	ATOM	137	CA	HIS	A	20	0.217	35.576	46.285	1.00	19.81
	ATOM	138	C	HIS	A	20	-0.586	36.810	46.644	1.00	28.29
	ATOM	139	O	HIS	A	20	-1.767	36.712	47.018	1.00	30.86
30	ATOM	140	CB	HIS	A	20	0.093	35.392	44.758	1.00	17.26
	ATOM	141	CG	HIS	A	20	0.795	36.466	44.024	1.00	19.73
	ATOM	142	ND1	HIS	A	20	2.171	36.455	43.885	1.00	22.73
	ATOM	143	CD2	HIS	A	20	0.305	37.600	43.437	1.00	20.99
	ATOM	144	CE1	HIS	A	20	2.491	37.554	43.201	1.00	21.23
35	ATOM	145	NE2	HIS	A	20	1.386	38.269	42.903	1.00	20.99
	ATOM	146	N	LEU	A	21	0.073	37.954	46.508	1.00	25.18
	ATOM	147	CA	LEU	A	21	-0.585	39.209	46.747	1.00	28.41
	ATOM	148	C	LEU	A	21	-0.211	40.147	45.656	1.00	28.28
	ATOM	149	O	LEU	A	21	0.974	40.321	45.363	1.00	26.48
40	ATOM	150	CB	LEU	A	21	-0.249	39.882	48.102	1.00	32.02
	ATOM	151	CG	LEU	A	21	-0.533	41.395	48.217	1.00	34.40
	ATOM	152	CD1	LEU	A	21	-1.979	41.712	48.615	1.00	30.29
	ATOM	153	CD2	LEU	A	21	0.389	42.000	49.268	1.00	32.78
	ATOM	154	N	HIS	A	22	-1.244	40.728	45.062	1.00	28.64
45	ATOM	155	CA	HIS	A	22	-1.000	41.741	44.057	1.00	30.85
	ATOM	156	C	HIS	A	22	-1.517	43.012	44.701	1.00	30.38
	ATOM	157	O	HIS	A	22	-2.696	43.102	45.056	1.00	30.58
	ATOM	158	CB	HIS	A	22	-1.554	41.551	42.611	1.00	31.85
	ATOM	159	CG	HIS	A	22	-1.182	42.743	41.778	1.00	32.51
50	ATOM	160	ND1	HIS	A	22	-2.120	43.577	41.209	1.00	35.74
	ATOM	161	CD2	HIS	A	22	0.035	43.261	41.489	1.00	36.85
	ATOM	162	CE1	HIS	A	22	-1.463	44.545	40.580	1.00	36.22
	ATOM	163	NE2	HIS	A	22	-0.152	44.400	40.736	1.00	37.12
	ATOM	164	N	LEU	A	23	-0.583	43.938	44.898	1.00	29.56
55	ATOM	165	CA	LEU	A	23	-0.842	45.192	45.558	1.00	30.11
	ATOM	166	C	LEU	A	23	-0.590	46.398	44.661	1.00	32.22
	ATOM	167	O	LEU	A	23	0.486	46.685	44.121	1.00	32.37
	ATOM	168	CB	LEU	A	23	-0.018	45.260	46.884	1.00	30.21
	ATOM	169	CG	LEU	A	23	-0.410	46.274	47.982	1.00	33.02
60	ATOM	170	CD1	LEU	A	23	0.663	47.343	48.117	1.00	32.82
	ATOM	171	CD2	LEU	A	23	-1.745	46.956	47.745	1.00	38.23
	ATOM	172	N	ARG	A	24	-1.656	47.133	44.534	1.00	34.49
	ATOM	173	CA	ARG	A	24	-1.632	48.369	43.784	1.00	38.52
	ATOM	174	C	ARG	A	24	-2.194	49.370	44.783	1.00	40.35
	ATOM	175	O	ARG	A	24	-3.268	49.139	45.369	1.00	36.87
	ATOM	176	CB	ARG	A	24	-2.487	48.307	42.521	1.00	45.90
	ATOM	177	CG	ARG	A	24	-1.833	47.544	41.371	1.00	63.78
	ATOM	178	CD	ARG	A	24	-2.551	47.750	40.046	1.00	88.27

	ATOM	179	NE	ARG	A	24	-3.826	47.027	39.967	1.00	96.90
	ATOM	180	CZ	ARG	A	24	-5.046	47.558	40.154	1.00	100.00
	ATOM	181	NH1	ARG	A	24	-5.263	48.853	40.383	1.00	100.00
	ATOM	182	NH2	ARG	A	24	-6.104	46.743	40.069	1.00	100.00
5	ATOM	183	N	CYS	A	25	-1.426	50.431	45.031	1.00	39.47
	ATOM	184	CA	CYS	A	25	-1.849	51.420	46.022	1.00	37.37
	ATOM	185	C	CYS	A	25	-1.146	52.736	45.798	1.00	36.83
	ATOM	186	O	CYS	A	25	-0.142	52.824	45.066	1.00	33.74
	ATOM	187	CB	CYS	A	25	-1.530	50.963	47.475	1.00	35.76
10	ATOM	188	SG	CYS	A	25	0.259	50.957	47.818	1.00	38.00
	ATOM	189	N	SER	A	26	-1.713	53.740	46.463	1.00	36.43
	ATOM	190	CA	SER	A	26	-1.142	55.075	46.417	1.00	38.33
	ATOM	191	C	SER	A	26	-0.971	55.634	47.816	1.00	30.93
	ATOM	192	O	SER	A	26	-1.815	55.443	48.713	1.00	29.52
15	ATOM	193	CB	SER	A	26	-1.828	56.089	45.502	1.00	49.53
	ATOM	194	OG	SER	A	26	-0.941	57.173	45.231	1.00	58.28
	ATOM	195	N	VAL	A	27	0.151	56.326	47.925	1.00	30.23
	ATOM	196	CA	VAL	A	27	0.555	56.974	49.156	1.00	31.98
	ATOM	197	C	VAL	A	27	0.120	58.438	49.259	1.00	34.81
20	ATOM	198	O	VAL	A	27	0.708	59.320	48.614	1.00	36.20
	ATOM	199	CB	VAL	A	27	2.056	56.797	49.389	1.00	36.39
	ATOM	200	CG1	VAL	A	27	2.402	57.292	50.802	1.00	36.16
	ATOM	201	CG2	VAL	A	27	2.392	55.309	49.226	1.00	34.26
	ATOM	202	N	ASP	A	28	-0.915	58.693	50.070	1.00	32.47
25	ATOM	203	CA	ASP	A	28	-1.391	60.061	50.283	1.00	32.12
	ATOM	204	C	ASP	A	28	-0.872	60.655	51.590	1.00	29.94
	ATOM	205	O	ASP	A	28	-1.385	60.375	52.668	1.00	27.16
	ATOM	206	CB	ASP	A	28	-2.908	60.186	50.345	1.00	35.00
	ATOM	207	CG	ASP	A	28	-3.313	61.619	50.120	1.00	53.22
30	ATOM	208	OD1	ASP	A	28	-2.651	62.584	50.471	1.00	49.41
	ATOM	209	OD2	ASP	A	28	-4.427	61.711	49.443	1.00	71.15
	ATOM	210	N	PHE	A	29	0.151	61.476	51.445	1.00	26.90
	ATOM	211	CA	PHE	A	29	0.824	62.141	52.517	1.00	30.95
	ATOM	212	C	PHE	A	29	0.030	63.292	53.087	1.00	46.44
35	ATOM	213	O	PHE	A	29	0.319	63.796	54.155	1.00	49.29
	ATOM	214	CB	PHE	A	29	2.100	62.723	51.935	1.00	35.58
	ATOM	215	CG	PHE	A	29	3.276	61.805	52.080	1.00	42.10
	ATOM	216	CD1	PHE	A	29	3.676	61.428	53.360	1.00	46.10
	ATOM	217	CD2	PHE	A	29	3.981	61.318	50.978	1.00	48.22
40	ATOM	218	CE1	PHE	A	29	4.765	60.586	53.561	1.00	44.91
	ATOM	219	CE2	PHE	A	29	5.073	60.468	51.159	1.00	52.10
	ATOM	220	CZ	PHE	A	29	5.465	60.115	52.451	1.00	47.34
	ATOM	221	N	THR	A	30	-0.968	63.747	52.360	1.00	48.35
	ATOM	222	CA	THR	A	30	-1.739	64.842	52.861	1.00	45.84
45	ATOM	223	C	THR	A	30	-2.775	64.261	53.763	1.00	44.97
	ATOM	224	O	THR	A	30	-3.096	64.772	54.823	1.00	49.48
	ATOM	225	CB	THR	A	30	-2.404	65.608	51.725	1.00	55.54
	ATOM	226	OG1	THR	A	30	-1.559	66.700	51.398	1.00	68.26
	ATOM	227	CG2	THR	A	30	-3.777	66.061	52.205	1.00	46.96
50	ATOM	228	N	ARG	A	31	-3.283	63.147	53.323	1.00	32.80
	ATOM	229	CA	ARG	A	31	-4.268	62.480	54.132	1.00	32.20
	ATOM	230	C	ARG	A	31	-3.634	61.456	55.067	1.00	32.13
	ATOM	231	O	ARG	A	31	-4.409	60.864	55.817	1.00	25.23
	ATOM	232	CB	ARG	A	31	-5.159	61.629	53.241	1.00	35.88
55	ATOM	233	CG	ARG	A	31	-6.462	62.306	52.863	1.00	66.91
	ATOM	234	CD	ARG	A	31	-6.539	62.672	51.392	1.00	93.56
	ATOM	235	NE	ARG	A	31	-5.721	63.825	51.011	1.00	98.33
	ATOM	236	CZ	ARG	A	31	-6.218	64.857	50.328	1.00	89.65
	ATOM	237	NH1	ARG	A	31	-7.498	64.895	49.977	1.00	51.14
60	ATOM	238	NH2	ARG	A	31	-5.436	65.878	49.985	1.00	74.59
	ATOM	239	N	ARG	A	32	-2.297	61.231	54.941	1.00	31.30
	ATOM	240	CA	ARG	A	32	-1.532	60.215	55.692	1.00	32.00
	ATOM	241	C	ARG	A	32	-2.237	58.877	55.522	1.00	35.90
	ATOM	242	O	ARG	A	32	-2.616	58.213	56.497	1.00	26.95

	ATOM	243	CB	ARG	A	32	-1.207	60.481	57.169	1.00	26.70
	ATOM	244	CG	ARG	A	32	-1.154	61.960	57.566	1.00	62.26
	ATOM	245	CD	ARG	A	32	0.170	62.511	58.124	1.00	84.61
5	ATOM	246	NE	ARG	A	32	0.480	62.134	59.510	1.00	72.60
	ATOM	247	CZ	ARG	A	32	1.452	62.642	60.280	1.00	62.89
	ATOM	248	NH1	ARG	A	32	2.263	63.606	59.881	1.00	47.22
	ATOM	249	NH2	ARG	A	32	1.636	62.159	61.505	1.00	34.21
	ATOM	250	N	THR	A	33	-2.450	58.522	54.252	1.00	32.05
10	ATOM	251	CA	THR	A	33	-3.137	57.281	53.939	1.00	31.81
	ATOM	252	C	THR	A	33	-2.518	56.516	52.788	1.00	38.17
	ATOM	253	O	THR	A	33	-1.863	57.045	51.884	1.00	40.95
	ATOM	254	CB	THR	A	33	-4.604	57.441	53.507	1.00	40.71
	ATOM	255	OG1	THR	A	33	-4.727	58.394	52.471	1.00	49.59
	ATOM	256	CG2	THR	A	33	-5.598	57.635	54.638	1.00	36.31
15	ATOM	257	N	LEU	A	34	-2.804	55.231	52.887	1.00	36.61
	ATOM	258	CA	LEU	A	34	-2.446	54.238	51.916	1.00	37.65
	ATOM	259	C	LEU	A	34	-3.787	53.723	51.432	1.00	30.48
	ATOM	260	O	LEU	A	34	-4.667	53.249	52.175	1.00	31.53
20	ATOM	261	CB	LEU	A	34	-1.595	53.099	52.497	1.00	39.99
	ATOM	262	CG	LEU	A	34	-0.159	53.091	52.033	1.00	44.09
	ATOM	263	CD1	LEU	A	34	0.279	51.634	52.017	1.00	42.13
	ATOM	264	CD2	LEU	A	34	-0.102	53.656	50.627	1.00	52.70
	ATOM	265	N	THR	A	35	-3.963	53.889	50.149	1.00	29.30
25	ATOM	266	CA	THR	A	35	-5.230	53.461	49.625	1.00	34.60
	ATOM	267	C	THR	A	35	-5.039	52.558	48.420	1.00	39.30
	ATOM	268	O	THR	A	35	-4.116	52.754	47.594	1.00	36.72
	ATOM	269	CB	THR	A	35	-5.983	54.705	49.146	1.00	62.16
	ATOM	270	OG1	THR	A	35	-6.129	55.655	50.184	1.00	63.09
30	ATOM	271	CG2	THR	A	35	-7.320	54.270	48.569	1.00	67.46
	ATOM	272	N	GLY	A	36	-5.923	51.576	48.315	1.00	33.04
	ATOM	273	CA	GLY	A	36	-5.736	50.731	47.162	1.00	32.58
	ATOM	274	C	GLY	A	36	-6.472	49.414	47.226	1.00	29.34
	ATOM	275	O	GLY	A	36	-7.502	49.276	47.901	1.00	29.27
35	ATOM	276	N	THR	A	37	-5.871	48.454	46.512	1.00	29.27
	ATOM	277	CA	THR	A	37	-6.422	47.099	46.445	1.00	30.12
	ATOM	278	C	THR	A	37	-5.399	46.039	46.733	1.00	27.15
	ATOM	279	O	THR	A	37	-4.260	46.093	46.280	1.00	29.53
	ATOM	280	CB	THR	A	37	-6.985	46.710	45.065	1.00	29.58
40	ATOM	281	OG1	THR	A	37	-6.019	47.050	44.078	1.00	35.41
	ATOM	282	CG2	THR	A	37	-8.267	47.478	44.850	1.00	34.18
	ATOM	283	N	ALA	A	38	-5.911	45.069	47.445	1.00	25.51
	ATOM	284	CA	ALA	A	38	-5.117	43.938	47.811	1.00	28.59
	ATOM	285	C	ALA	A	38	-5.727	42.723	47.142	1.00	28.95
45	ATOM	286	O	ALA	A	38	-6.743	42.181	47.580	1.00	29.76
	ATOM	287	CB	ALA	A	38	-5.053	43.783	49.332	1.00	28.09
	ATOM	288	N	ALA	A	39	-5.087	42.281	46.069	1.00	29.16
	ATOM	289	CA	ALA	A	39	-5.595	41.098	45.400	1.00	28.96
	ATOM	290	C	ALA	A	39	-4.856	39.897	45.952	1.00	32.32
50	ATOM	291	O	ALA	A	39	-3.656	39.721	45.724	1.00	31.17
	ATOM	292	CB	ALA	A	39	-5.360	41.169	43.908	1.00	28.71
	ATOM	293	N	LEU	A	40	-5.592	39.103	46.706	1.00	29.20
	ATOM	294	CA	LEU	A	40	-5.003	37.945	47.317	1.00	30.98
	ATOM	295	C	LEU	A	40	-5.327	36.648	46.592	1.00	34.18
55	ATOM	296	O	LEU	A	40	-6.498	36.316	46.393	1.00	32.36
	ATOM	297	CB	LEU	A	40	-5.554	37.761	48.760	1.00	31.07
	ATOM	298	CG	LEU	A	40	-5.397	38.943	49.718	1.00	31.64
	ATOM	299	CD1	LEU	A	40	-5.822	38.486	51.108	1.00	28.47
	ATOM	300	CD2	LEU	A	40	-3.944	39.386	49.725	1.00	21.87
60	ATOM	301	N	THR	A	41	-4.311	35.861	46.263	1.00	30.21
	ATOM	302	CA	THR	A	41	-4.632	34.568	45.683	1.00	30.42
	ATOM	303	C	THR	A	41	-4.602	33.586	46.837	1.00	35.30
	ATOM	304	O	THR	A	41	-3.571	33.422	47.482	1.00	34.05
	ATOM	305	CB	THR	A	41	-3.679	34.105	44.584	1.00	42.24
	ATOM	306	OG1	THR	A	41	-3.701	35.078	43.562	1.00	39.08

	ATOM	307	CG2	THR	A	41	-4.097	32.709	44.090	1.00	29.36
	ATOM	308	N	VAL	A	42	-5.752	32.982	47.091	1.00	30.50
	ATOM	309	CA	VAL	A	42	-5.944	32.058	48.180	1.00	30.58
5	ATOM	310	C	VAL	A	42	-6.186	30.625	47.728	1.00	38.17
	ATOM	311	O	VAL	A	42	-6.913	30.370	46.764	1.00	37.98
	ATOM	312	CB	VAL	A	42	-7.074	32.551	49.091	1.00	31.60
	ATOM	313	CG1	VAL	A	42	-7.339	31.536	50.190	1.00	30.16
	ATOM	314	CG2	VAL	A	42	-6.681	33.877	49.750	1.00	31.76
10	ATOM	315	N	GLN	A	43	-5.570	29.690	48.453	1.00	30.27
	ATOM	316	CA	GLN	A	43	-5.721	28.291	48.163	1.00	28.24
	ATOM	317	C	GLN	A	43	-6.374	27.521	49.293	1.00	30.98
	ATOM	318	O	GLN	A	43	-5.906	27.495	50.437	1.00	30.47
	ATOM	319	CB	GLN	A	43	-4.376	27.685	47.751	1.00	30.68
15	ATOM	320	CG	GLN	A	43	-4.447	26.152	47.645	1.00	44.61
	ATOM	321	CD	GLN	A	43	-3.066	25.550	47.505	1.00	49.18
	ATOM	322	OE1	GLN	A	43	-2.652	25.101	46.429	1.00	53.81
	ATOM	323	NE2	GLN	A	43	-2.341	25.541	48.608	1.00	45.20
	ATOM	324	N	SER	A	44	-7.497	26.882	48.985	1.00	25.18
20	ATOM	325	CA	SER	A	44	-8.183	26.107	49.989	1.00	20.91
	ATOM	326	C	SER	A	44	-7.415	24.853	50.329	1.00	32.88
	ATOM	327	O	SER	A	44	-6.657	24.358	49.493	1.00	35.47
	ATOM	328	CB	SER	A	44	-9.552	25.704	49.511	1.00	22.65
	ATOM	329	OG	SER	A	44	-10.157	24.911	50.512	1.00	31.76
25	ATOM	330	N	GLN	A	45	-7.630	24.344	51.546	1.00	29.62
	ATOM	331	CA	GLN	A	45	-7.006	23.114	52.035	1.00	30.38
	ATOM	332	C	GLN	A	45	-8.085	22.147	52.497	1.00	38.25
	ATOM	333	O	GLN	A	45	-7.848	21.077	53.083	1.00	33.96
	ATOM	334	CB	GLN	A	45	-6.126	23.384	53.276	1.00	30.97
30	ATOM	335	CG	GLN	A	45	-5.209	24.589	53.105	1.00	19.22
	ATOM	336	CD	GLN	A	45	-4.264	24.414	51.939	1.00	44.80
	ATOM	337	OE1	GLN	A	45	-4.199	25.228	50.995	1.00	46.26
	ATOM	338	NE2	GLN	A	45	-3.520	23.319	52.002	1.00	28.67
	ATOM	339	N	GLU	A	46	-9.295	22.622	52.280	1.00	38.36
35	ATOM	340	CA	GLU	A	46	-10.494	21.931	52.674	1.00	41.96
	ATOM	341	C	GLU	A	46	-11.465	21.892	51.512	1.00	44.78
	ATOM	342	O	GLU	A	46	-11.482	22.772	50.648	1.00	38.52
	ATOM	343	CB	GLU	A	46	-11.225	22.681	53.828	1.00	44.36
	ATOM	344	CG	GLU	A	46	-10.440	22.959	55.132	1.00	56.09
40	ATOM	345	CD	GLU	A	46	-11.309	23.520	56.226	1.00	70.52
	ATOM	346	OE1	GLU	A	46	-12.359	24.099	55.997	1.00	65.91
	ATOM	347	OE2	GLU	A	46	-10.822	23.315	57.432	1.00	89.95
	ATOM	348	N	ASP	A	47	-12.301	20.871	51.516	1.00	45.87
	ATOM	349	CA	ASP	A	47	-13.287	20.831	50.474	1.00	49.24
45	ATOM	350	C	ASP	A	47	-14.443	21.658	50.966	1.00	50.94
	ATOM	351	O	ASP	A	47	-14.693	21.733	52.167	1.00	50.75
	ATOM	352	CB	ASP	A	47	-13.770	19.400	50.251	1.00	53.61
	ATOM	353	CG	ASP	A	47	-12.685	18.588	49.621	1.00	74.24
	ATOM	354	OD1	ASP	A	47	-12.004	19.005	48.689	1.00	70.46
50	ATOM	355	OD2	ASP	A	47	-12.545	17.420	50.206	1.00	90.87
	ATOM	356	N	ASN	A	48	-15.152	22.285	50.059	1.00	48.17
	ATOM	357	CA	ASN	A	48	-16.290	23.066	50.491	1.00	48.03
	ATOM	358	C	ASN	A	48	-15.954	24.303	51.298	1.00	44.92
	ATOM	359	O	ASN	A	48	-16.641	24.644	52.272	1.00	40.67
55	ATOM	360	CB	ASN	A	48	-17.289	22.225	51.310	1.00	44.29
	ATOM	361	CG	ASN	A	48	-18.688	22.771	51.105	1.00	86.53
	ATOM	362	OD1	ASN	A	48	-19.012	23.236	49.996	1.00	80.31
	ATOM	363	ND2	ASN	A	48	-19.495	22.754	52.167	1.00	79.87
	ATOM	364	N	LEU	A	49	-14.902	24.975	50.899	1.00	37.27
60	ATOM	365	CA	LEU	A	49	-14.575	26.165	51.639	1.00	35.59
	ATOM	366	C	LEU	A	49	-15.499	27.253	51.115	1.00	40.36
	ATOM	367	O	LEU	A	49	-15.408	27.618	49.944	1.00	41.04
	ATOM	368	CB	LEU	A	49	-13.075	26.504	51.519	1.00	33.17
	ATOM	369	CG	LEU	A	49	-12.645	27.780	52.244	1.00	36.35
	ATOM	370	CD1	LEU	A	49	-12.842	27.583	53.737	1.00	34.98

	ATOM	371	CD2	LEU	A	49	-11.169	28.024	51.977	1.00	32.02
	ATOM	372	N	ARG	A	50	-16.402	27.745	51.966	1.00	38.16
	ATOM	373	CA	ARG	A	50	-17.343	28.785	51.541	1.00	40.98
	ATOM	374	C	ARG	A	50	-17.066	30.228	51.997	1.00	46.66
5	ATOM	375	O	ARG	A	50	-17.541	31.214	51.410	1.00	38.00
	ATOM	376	CB	ARG	A	50	-18.744	28.339	51.902	1.00	46.12
	ATOM	377	CG	ARG	A	50	-19.238	27.266	50.932	1.00	61.10
	ATOM	378	CD	ARG	A	50	-20.306	26.345	51.511	1.00	75.76
	ATOM	379	NE	ARG	A	50	-20.745	25.322	50.554	1.00	100.00
10	ATOM	380	CZ	ARG	A	50	-21.979	24.809	50.451	1.00	100.00
	ATOM	381	NH1	ARG	A	50	-22.981	25.195	51.240	1.00	100.00
	ATOM	382	NH2	ARG	A	50	-22.220	23.875	49.527	1.00	84.13
	ATOM	383	N	SER	A	51	-16.271	30.339	53.066	1.00	50.16
	ATOM	384	CA	SER	A	51	-15.885	31.610	53.671	1.00	49.64
15	ATOM	385	C	SER	A	51	-14.550	31.540	54.403	1.00	47.77
	ATOM	386	O	SER	A	51	-14.207	30.522	55.029	1.00	42.04
	ATOM	387	CB	SER	A	51	-16.925	32.073	54.697	1.00	53.65
	ATOM	388	OG	SER	A	51	-17.107	31.125	55.755	1.00	51.47
	ATOM	389	N	LEU	A	52	-13.829	32.663	54.351	1.00	41.55
20	ATOM	390	CA	LEU	A	52	-12.575	32.757	55.087	1.00	40.56
	ATOM	391	C	LEU	A	52	-12.474	33.996	55.991	1.00	43.53
	ATOM	392	O	LEU	A	52	-13.288	34.921	55.895	1.00	39.84
	ATOM	393	CB	LEU	A	52	-11.291	32.385	54.325	1.00	39.23
	ATOM	394	CG	LEU	A	52	-10.884	33.281	53.164	1.00	45.23
25	ATOM	395	CD1	LEU	A	52	-11.692	32.934	51.927	1.00	47.83
	ATOM	396	CD2	LEU	A	52	-10.973	34.762	53.516	1.00	44.42
	ATOM	397	N	VAL	A	53	-11.489	34.013	56.899	1.00	37.60
	ATOM	398	CA	VAL	A	53	-11.289	35.157	57.773	1.00	32.60
	ATOM	399	C	VAL	A	53	-9.902	35.696	57.554	1.00	31.28
30	ATOM	400	O	VAL	A	53	-8.942	34.925	57.414	1.00	26.57
	ATOM	401	CB	VAL	A	53	-11.527	34.916	59.258	1.00	34.90
	ATOM	402	CG1	VAL	A	53	-11.411	36.227	60.052	1.00	32.09
	ATOM	403	CG2	VAL	A	53	-12.904	34.310	59.444	1.00	34.64
	ATOM	404	N	LEU	A	54	-9.857	37.020	57.478	1.00	22.73
35	ATOM	405	CA	LEU	A	54	-8.634	37.730	57.325	1.00	21.84
	ATOM	406	C	LEU	A	54	-8.434	38.607	58.562	1.00	30.12
	ATOM	407	O	LEU	A	54	-9.386	38.932	59.275	1.00	27.27
	ATOM	408	CB	LEU	A	54	-8.642	38.619	56.097	1.00	23.04
	ATOM	409	CG	LEU	A	54	-8.545	37.839	54.796	1.00	29.10
40	ATOM	410	CD1	LEU	A	54	-8.495	38.869	53.678	1.00	26.16
	ATOM	411	CD2	LEU	A	54	-7.251	37.027	54.743	1.00	24.36
	ATOM	412	N	ASP	A	55	-7.175	38.970	58.810	1.00	27.32
	ATOM	413	CA	ASP	A	55	-6.807	39.843	59.910	1.00	24.82
	ATOM	414	C	ASP	A	55	-6.785	41.269	59.354	1.00	24.10
45	ATOM	415	O	ASP	A	55	-6.404	41.485	58.196	1.00	20.86
	ATOM	416	CB	ASP	A	55	-5.390	39.545	60.475	1.00	23.73
	ATOM	417	CG	ASP	A	55	-5.197	38.294	61.291	1.00	16.69
	ATOM	418	OD1	ASP	A	55	-5.748	38.060	62.371	1.00	23.25
	ATOM	419	OD2	ASP	A	55	-4.279	37.499	60.737	1.00	20.96
50	ATOM	420	N	THR	A	56	-7.203	42.241	60.199	1.00	24.09
	ATOM	421	CA	THR	A	56	-7.176	43.675	59.882	1.00	21.61
	ATOM	422	C	THR	A	56	-6.990	44.475	61.175	1.00	20.13
	ATOM	423	O	THR	A	56	-7.355	44.035	62.254	1.00	18.34
	ATOM	424	CB	THR	A	56	-8.477	44.244	59.263	1.00	21.22
55	ATOM	425	OG1	THR	A	56	-9.507	44.197	60.246	1.00	22.90
	ATOM	426	CG2	THR	A	56	-8.831	43.494	57.987	1.00	21.74
	ATOM	427	N	LYS	A	57	-6.498	45.695	61.046	1.00	20.23
	ATOM	428	CA	LYS	A	57	-6.428	46.501	62.242	1.00	19.81
	ATOM	429	C	LYS	A	57	-6.591	47.937	61.799	1.00	21.15
60	ATOM	430	O	LYS	A	57	-5.807	48.429	61.010	1.00	19.90
	ATOM	431	CB	LYS	A	57	-5.124	46.230	62.926	1.00	24.68
	ATOM	432	CG	LYS	A	57	-4.922	46.928	64.262	1.00	40.66
	ATOM	433	CD	LYS	A	57	-3.439	47.032	64.609	1.00	42.93
	ATOM	434	CE	LYS	A	57	-3.141	46.702	66.060	1.00	75.78

	ATOM	435	NZ	LYS	A	57	-1.894	47.316	66.567	1.00	94.53
	ATOM	436	N	ASP	A	58	-7.639	48.622	62.241	1.00	20.19
	ATOM	437	CA	ASP	A	58	-7.788	49.989	61.784	1.00	17.85
	ATOM	438	C	ASP	A	58	-7.836	50.124	60.283	1.00	24.95
5	ATOM	439	O	ASP	A	58	-7.335	51.088	59.678	1.00	23.25
	ATOM	440	CB	ASP	A	58	-6.780	50.959	62.402	1.00	21.68
	ATOM	441	CG	ASP	A	58	-7.118	50.982	63.856	1.00	36.83
	ATOM	442	OD1	ASP	A	58	-8.253	51.136	64.263	1.00	40.21
10	ATOM	443	OD2	ASP	A	58	-6.100	50.683	64.618	1.00	37.52
	ATOM	444	N	LEU	A	59	-8.466	49.121	59.698	1.00	26.52
	ATOM	445	CA	LEU	A	59	-8.615	49.130	58.259	1.00	29.86
	ATOM	446	C	LEU	A	59	-10.025	49.586	57.847	1.00	33.01
	ATOM	447	O	LEU	A	59	-11.070	49.255	58.424	1.00	29.32
	ATOM	448	CB	LEU	A	59	-8.196	47.789	57.588	1.00	29.02
15	ATOM	449	CG	LEU	A	59	-6.682	47.520	57.589	1.00	29.22
	ATOM	450	CD1	LEU	A	59	-6.377	46.244	56.795	1.00	29.68
	ATOM	451	CD2	LEU	A	59	-5.923	48.703	56.978	1.00	22.97
	ATOM	452	N	THR	A	60	-10.029	50.399	56.819	1.00	36.77
	ATOM	453	CA	THR	A	60	-11.279	50.877	56.254	1.00	42.01
20	ATOM	454	C	THR	A	60	-11.494	50.092	54.940	1.00	36.44
	ATOM	455	O	THR	A	60	-10.694	50.247	53.992	1.00	33.67
	ATOM	456	CB	THR	A	60	-11.220	52.424	56.080	1.00	56.43
	ATOM	457	OG1	THR	A	60	-11.614	53.107	57.261	1.00	52.66
25	ATOM	458	CG2	THR	A	60	-12.034	52.910	54.893	1.00	60.41
	ATOM	459	N	ILE	A	61	-12.515	49.227	54.909	1.00	29.81
	ATOM	460	CA	ILE	A	61	-12.779	48.432	53.711	1.00	32.79
	ATOM	461	C	ILE	A	61	-13.799	49.068	52.780	1.00	35.88
	ATOM	462	O	ILE	A	61	-14.939	49.202	53.176	1.00	30.98
	ATOM	463	CB	ILE	A	61	-13.337	47.038	53.972	1.00	37.74
30	ATOM	464	CG1	ILE	A	61	-12.616	46.331	55.118	1.00	40.37
	ATOM	465	CG2	ILE	A	61	-13.264	46.240	52.661	1.00	36.33
	ATOM	466	CD1	ILE	A	61	-11.098	46.353	54.952	1.00	49.83
	ATOM	467	N	GLU	A	62	-13.396	49.409	51.562	1.00	40.08
35	ATOM	468	CA	GLU	A	62	-14.276	49.995	50.553	1.00	43.04
	ATOM	469	C	GLU	A	62	-15.199	48.885	50.016	1.00	45.27
	ATOM	470	O	GLU	A	62	-16.415	48.853	50.243	1.00	45.18
	ATOM	471	CB	GLU	A	62	-13.392	50.640	49.457	1.00	45.63
	ATOM	472	CG	GLU	A	62	-14.131	51.580	48.471	1.00	73.11
40	ATOM	473	CD	GLU	A	62	-14.846	50.895	47.320	1.00	100.00
	ATOM	474	OE1	GLU	A	62	-15.037	49.689	47.286	1.00	100.00
	ATOM	475	OE2	GLU	A	62	-15.254	51.717	46.368	1.00	100.00
	ATOM	476	N	LYS	A	63	-14.588	47.918	49.336	1.00	38.38
	ATOM	477	CA	LYS	A	63	-15.311	46.761	48.838	1.00	37.37
	ATOM	478	C	LYS	A	63	-14.396	45.541	48.702	1.00	38.22
45	ATOM	479	O	LYS	A	63	-13.167	45.646	48.717	1.00	32.45
	ATOM	480	CB	LYS	A	63	-16.022	47.038	47.530	1.00	33.09
	ATOM	481	CG	LYS	A	63	-15.051	47.059	46.366	1.00	27.59
	ATOM	482	CD	LYS	A	63	-15.548	47.905	45.207	1.00	37.24
	ATOM	483	CE	LYS	A	63	-14.443	48.583	44.423	1.00	43.28
50	ATOM	484	NZ	LYS	A	63	-14.395	48.151	43.015	1.00	76.13
	ATOM	485	N	VAL	A	64	-15.049	44.395	48.574	1.00	43.49
	ATOM	486	CA	VAL	A	64	-14.436	43.081	48.377	1.00	45.64
	ATOM	487	C	VAL	A	64	-14.934	42.410	47.087	1.00	45.26
55	ATOM	488	O	VAL	A	64	-16.058	41.916	46.997	1.00	39.88
	ATOM	489	CB	VAL	A	64	-14.689	42.140	49.543	1.00	48.77
	ATOM	490	CG1	VAL	A	64	-14.270	40.746	49.101	1.00	48.87
	ATOM	491	CG2	VAL	A	64	-13.861	42.572	50.742	1.00	47.38
	ATOM	492	N	VAL	A	65	-14.096	42.380	46.077	1.00	39.08
60	ATOM	493	CA	VAL	A	65	-14.534	41.789	44.840	1.00	40.48
	ATOM	494	C	VAL	A	65	-13.908	40.457	44.527	1.00	37.21
	ATOM	495	O	VAL	A	65	-12.717	40.294	44.730	1.00	33.83
	ATOM	496	CB	VAL	A	65	-14.162	42.709	43.687	1.00	48.88
	ATOM	497	CG1	VAL	A	65	-14.416	42.025	42.352	1.00	47.68
	ATOM	498	CG2	VAL	A	65	-14.946	44.014	43.767	1.00	51.54

	ATOM	499	N	ILE	A	66	-14.733	39.568	43.977	1.00	32.25
	ATOM	500	CA	ILE	A	66	-14.361	38.256	43.496	1.00	32.04
	ATOM	501	C	ILE	A	66	-15.071	37.989	42.163	1.00	44.56
	ATOM	502	O	ILE	A	66	-16.316	38.027	42.049	1.00	42.61
5	ATOM	503	CB	ILE	A	66	-14.649	37.095	44.429	1.00	35.68
	ATOM	504	CG1	ILE	A	66	-14.193	37.374	45.860	1.00	35.96
	ATOM	505	CG2	ILE	A	66	-13.875	35.912	43.866	1.00	35.65
	ATOM	506	CD1	ILE	A	66	-14.692	36.339	46.860	1.00	26.89
	ATOM	507	N	ASN	A	67	-14.261	37.702	41.147	1.00	46.77
10	ATOM	508	CA	ASN	A	67	-14.764	37.413	39.801	1.00	48.02
	ATOM	509	C	ASN	A	67	-15.601	38.568	39.297	1.00	51.70
	ATOM	510	O	ASN	A	67	-16.753	38.371	38.923	1.00	51.19
	ATOM	511	CB	ASN	A	67	-15.580	36.098	39.695	1.00	32.37
	ATOM	512	CG	ASN	A	67	-14.756	34.862	40.037	1.00	57.02
15	ATOM	513	OD1	ASN	A	67	-13.549	34.796	39.721	1.00	42.45
	ATOM	514	ND2	ASN	A	67	-15.389	33.889	40.714	1.00	45.38
	ATOM	515	N	GLY	A	68	-15.000	39.757	39.327	1.00	45.47
	ATOM	516	CA	GLY	A	68	-15.638	40.982	38.876	1.00	44.33
	ATOM	517	C	GLY	A	68	-16.870	41.394	39.669	1.00	52.05
20	ATOM	518	O	GLY	A	68	-17.456	42.442	39.422	1.00	60.14
	ATOM	519	N	GLN	A	69	-17.280	40.591	40.630	1.00	45.36
	ATOM	520	CA	GLN	A	69	-18.458	40.930	41.403	1.00	46.40
	ATOM	521	C	GLN	A	69	-18.156	41.109	42.894	1.00	57.29
25	ATOM	522	O	GLN	A	69	-17.404	40.355	43.525	1.00	55.55
	ATOM	523	CB	GLN	A	69	-19.575	39.858	41.258	1.00	48.27
	ATOM	524	CG	GLN	A	69	-20.184	39.636	39.841	1.00	33.05
	ATOM	525	CD	GLN	A	69	-20.435	40.926	39.098	1.00	73.86
	ATOM	526	OE1	GLN	A	69	-19.771	41.195	38.074	1.00	70.10
	ATOM	527	NE2	GLN	A	69	-21.364	41.729	39.634	1.00	75.78
30	ATOM	528	N	GLU	A	70	-18.800	42.114	43.469	1.00	54.73
	ATOM	529	CA	GLU	A	70	-18.661	42.408	44.879	1.00	53.61
	ATOM	530	C	GLU	A	70	-19.274	41.297	45.728	1.00	54.45
	ATOM	531	O	GLU	A	70	-20.285	40.708	45.342	1.00	56.71
	ATOM	532	CB	GLU	A	70	-19.244	43.794	45.191	1.00	54.16
35	ATOM	533	CG	GLU	A	70	-18.670	44.845	44.223	1.00	66.60
	ATOM	534	CD	GLU	A	70	-19.042	46.248	44.614	1.00	99.90
	ATOM	535	OE1	GLU	A	70	-19.763	46.518	45.567	1.00	55.96
	ATOM	536	OE2	GLU	A	70	-18.515	47.139	43.807	1.00	100.00
	ATOM	537	N	VAL	A	71	-18.652	40.992	46.875	1.00	41.84
40	ATOM	538	CA	VAL	A	71	-19.146	39.929	47.731	1.00	37.89
	ATOM	539	C	VAL	A	71	-19.472	40.373	49.160	1.00	37.87
	ATOM	540	O	VAL	A	71	-19.112	41.469	49.586	1.00	34.22
	ATOM	541	CB	VAL	A	71	-18.254	38.677	47.618	1.00	41.06
	ATOM	542	CG1	VAL	A	71	-17.823	38.468	46.158	1.00	38.37
45	ATOM	543	CG2	VAL	A	71	-17.012	38.800	48.500	1.00	39.32
	ATOM	544	N	LYS	A	72	-20.182	39.513	49.897	1.00	35.47
	ATOM	545	CA	LYS	A	72	-20.559	39.775	51.274	1.00	36.55
	ATOM	546	C	LYS	A	72	-19.325	39.664	52.171	1.00	48.55
	ATOM	547	O	LYS	A	72	-18.411	38.849	51.947	1.00	44.75
50	ATOM	548	CB	LYS	A	72	-21.607	38.799	51.783	1.00	36.22
	ATOM	549	CG	LYS	A	72	-22.618	39.411	52.729	1.00	71.24
	ATOM	550	CD	LYS	A	72	-23.875	39.881	52.015	1.00	91.55
	ATOM	551	CE	LYS	A	72	-25.018	40.175	52.979	1.00	100.00
55	ATOM	552	NZ	LYS	A	72	-25.393	39.021	53.821	1.00	100.00
	ATOM	553	N	TYR	A	73	-19.327	40.506	53.199	1.00	46.72
	ATOM	554	CA	TYR	A	73	-18.263	40.517	54.177	1.00	46.48
	ATOM	555	C	TYR	A	73	-18.637	41.190	55.466	1.00	47.06
	ATOM	556	O	TYR	A	73	-19.583	41.962	55.569	1.00	46.31
	ATOM	557	CB	TYR	A	73	-16.956	41.091	53.662	1.00	43.25
60	ATOM	558	CG	TYR	A	73	-16.940	42.580	53.611	1.00	47.55
	ATOM	559	CD1	TYR	A	73	-16.675	43.327	54.752	1.00	49.47
	ATOM	560	CD2	TYR	A	73	-17.111	43.242	52.396	1.00	49.40
	ATOM	561	CE1	TYR	A	73	-16.632	44.722	54.702	1.00	45.81
	ATOM	562	CE2	TYR	A	73	-17.031	44.632	52.315	1.00	50.44



	ATOM	563	CZ	TYR	A	73	-16.821	45.357	53.475	1.00	55.67
	ATOM	564	OH	TYR	A	73	-16.761	46.722	53.409	1.00	61.06
	ATOM	565	N	ALA	A	74	-17.852	40.860	56.462	1.00	41.61
5	ATOM	566	CA	ALA	A	74	-18.079	41.415	57.772	1.00	41.55
	ATOM	567	C	ALA	A	74	-16.763	41.674	58.524	1.00	45.67
	ATOM	568	O	ALA	A	74	-15.710	41.092	58.249	1.00	38.74
	ATOM	569	CB	ALA	A	74	-19.074	40.572	58.563	1.00	39.69
	ATOM	570	N	LEU	A	75	-16.861	42.609	59.464	1.00	43.41
10	ATOM	571	CA	LEU	A	75	-15.798	43.026	60.355	1.00	38.66
	ATOM	572	C	LEU	A	75	-16.241	42.750	61.778	1.00	34.64
	ATOM	573	O	LEU	A	75	-17.202	43.316	62.260	1.00	39.67
	ATOM	574	CB	LEU	A	75	-15.432	44.499	60.117	1.00	38.89
	ATOM	575	CG	LEU	A	75	-14.504	44.657	58.913	1.00	47.18
15	ATOM	576	CD1	LEU	A	75	-14.025	46.099	58.824	1.00	51.19
	ATOM	577	CD2	LEU	A	75	-13.278	43.760	59.032	1.00	48.20
	ATOM	578	N	GLY	A	76	-15.616	41.817	62.458	1.00	33.98
	ATOM	579	CA	GLY	A	76	-16.005	41.518	63.823	1.00	34.06
	ATOM	580	C	GLY	A	76	-15.526	42.623	64.766	1.00	38.57
20	ATOM	581	O	GLY	A	76	-14.887	43.617	64.372	1.00	36.37
	ATOM	582	N	GLU	A	77	-15.857	42.491	66.037	1.00	38.70
	ATOM	583	CA	GLU	A	77	-15.395	43.560	66.900	1.00	41.69
	ATOM	584	C	GLU	A	77	-13.907	43.415	67.146	1.00	41.16
	ATOM	585	O	GLU	A	77	-13.371	42.308	67.121	1.00	33.89
25	ATOM	586	CB	GLU	A	77	-16.152	43.651	68.238	1.00	44.95
	ATOM	587	CG	GLU	A	77	-16.634	42.290	68.792	1.00	66.34
	ATOM	588	CD	GLU	A	77	-16.713	42.271	70.307	1.00	100.00
	ATOM	589	OE1	GLU	A	77	-16.003	41.551	71.002	1.00	100.00
	ATOM	590	OE2	GLU	A	77	-17.607	43.109	70.802	1.00	100.00
30	ATOM	591	N	ARG	A	78	-13.266	44.551	67.393	1.00	42.48
	ATOM	592	CA	ARG	A	78	-11.843	44.608	67.681	1.00	40.23
	ATOM	593	C	ARG	A	78	-11.440	43.802	68.895	1.00	38.54
	ATOM	594	O	ARG	A	78	-12.137	43.783	69.908	1.00	33.87
	ATOM	595	CB	ARG	A	78	-11.360	46.010	67.939	1.00	39.17
35	ATOM	596	CG	ARG	A	78	-9.927	46.212	67.462	1.00	46.74
	ATOM	597	CD	ARG	A	78	-9.391	47.489	68.064	1.00	34.80
	ATOM	598	NE	ARG	A	78	-7.960	47.579	68.004	1.00	30.05
	ATOM	599	CZ	ARG	A	78	-7.466	48.544	67.282	1.00	56.07
	ATOM	600	NH1	ARG	A	78	-8.293	49.370	66.631	1.00	53.51
40	ATOM	601	NH2	ARG	A	78	-6.144	48.657	67.205	1.00	33.42
	ATOM	602	N	GLN	A	79	-10.293	43.133	68.761	1.00	31.91
	ATOM	603	CA	GLN	A	79	-9.743	42.334	69.829	1.00	30.53
	ATOM	604	C	GLN	A	79	-8.425	42.981	70.197	1.00	34.86
	ATOM	605	O	GLN	A	79	-7.340	42.497	69.903	1.00	33.78
45	ATOM	606	CB	GLN	A	79	-9.602	40.868	69.400	1.00	31.15
	ATOM	607	CG	GLN	A	79	-10.980	40.241	69.104	1.00	35.70
	ATOM	608	CD	GLN	A	79	-10.937	38.731	69.083	1.00	41.57
	ATOM	609	OE1	GLN	A	79	-10.137	38.088	69.795	1.00	41.83
	ATOM	610	NE2	GLN	A	79	-11.802	38.159	68.255	1.00	37.26
50	ATOM	611	N	SER	A	80	-8.566	44.149	70.795	1.00	28.82
	ATOM	612	CA	SER	A	80	-7.443	44.951	71.184	1.00	25.23
	ATOM	613	C	SER	A	80	-6.326	44.914	70.197	1.00	23.44
	ATOM	614	O	SER	A	80	-6.479	45.361	69.076	1.00	26.59
	ATOM	615	CB	SER	A	80	-6.889	44.746	72.585	1.00	31.25
55	ATOM	616	OG	SER	A	80	-6.560	43.393	72.744	1.00	36.44
	ATOM	617	N	TYR	A	81	-5.174	44.420	70.668	1.00	20.57
	ATOM	618	CA	TYR	A	81	-3.968	44.448	69.861	1.00	19.31
	ATOM	619	C	TYR	A	81	-3.981	43.578	68.648	1.00	19.50
	ATOM	620	O	TYR	A	81	-3.087	43.722	67.841	1.00	24.41
60	ATOM	621	CB	TYR	A	81	-2.638	44.225	70.624	1.00	20.60
	ATOM	622	CG	TYR	A	81	-2.615	42.834	71.192	1.00	16.49
	ATOM	623	CD1	TYR	A	81	-3.209	42.581	72.424	1.00	17.66
	ATOM	624	CD2	TYR	A	81	-2.085	41.783	70.452	1.00	17.05
	ATOM	625	CE1	TYR	A	81	-3.258	41.294	72.944	1.00	20.70
	ATOM	626	CE2	TYR	A	81	-2.178	40.481	70.933	1.00	18.17

5	ATOM	627	CZ	TYR	A	81	-2.731	40.249	72.192	1.00	21.91
	ATOM	628	OH	TYR	A	81	-2.804	38.975	72.700	1.00	23.17
	ATOM	629	N	LYS	A	82	-4.932	42.678	68.560	1.00	15.16
	ATOM	630	CA	LYS	A	82	-5.023	41.797	67.414	1.00	16.93
	ATOM	631	C	LYS	A	82	-5.794	42.437	66.270	1.00	29.18
10	ATOM	632	O	LYS	A	82	-5.780	41.883	65.177	1.00	28.33
	ATOM	633	CB	LYS	A	82	-5.620	40.450	67.767	1.00	16.35
	ATOM	634	CG	LYS	A	82	-5.110	39.966	69.106	1.00	32.81
	ATOM	635	CD	LYS	A	82	-5.245	38.472	69.330	1.00	28.25
	ATOM	636	CE	LYS	A	82	-5.699	38.100	70.734	1.00	39.59
15	ATOM	637	NZ	LYS	A	82	-6.304	36.762	70.827	1.00	41.62
	ATOM	638	N	GLY	A	83	-6.437	43.596	66.510	1.00	24.43
	ATOM	639	CA	GLY	A	83	-7.209	44.249	65.467	1.00	21.14
	ATOM	640	C	GLY	A	83	-8.579	43.564	65.361	1.00	27.80
	ATOM	641	O	GLY	A	83	-9.037	42.901	66.295	1.00	23.50
20	ATOM	642	N	SER	A	84	-9.218	43.674	64.186	1.00	28.99
	ATOM	643	CA	SER	A	84	-10.541	43.072	63.948	1.00	27.81
	ATOM	644	C	SER	A	84	-10.601	42.083	62.770	1.00	28.89
	ATOM	645	O	SER	A	84	-10.153	42.340	61.646	1.00	27.83
	ATOM	646	CB	SER	A	84	-11.619	44.136	63.732	1.00	30.17
25	ATOM	647	OG	SER	A	84	-11.229	45.402	64.258	1.00	40.66
	ATOM	648	N	PRO	A	85	-11.210	40.949	63.053	1.00	22.21
	ATOM	649	CA	PRO	A	85	-11.380	39.868	62.087	1.00	23.63
	ATOM	650	C	PRO	A	85	-12.323	40.261	60.970	1.00	34.83
	ATOM	651	O	PRO	A	85	-13.428	40.734	61.227	1.00	32.98
30	ATOM	652	CB	PRO	A	85	-12.094	38.750	62.838	1.00	20.66
	ATOM	653	CG	PRO	A	85	-12.728	39.406	64.064	1.00	26.90
	ATOM	654	CD	PRO	A	85	-12.026	40.748	64.281	1.00	19.24
	ATOM	655	N	MET	A	86	-11.873	40.007	59.748	1.00	32.85
	ATOM	656	CA	MET	A	86	-12.657	40.277	58.567	1.00	27.57
35	ATOM	657	C	MET	A	86	-13.107	38.999	57.876	1.00	35.20
	ATOM	658	O	MET	A	86	-12.324	38.287	57.254	1.00	32.03
	ATOM	659	CB	MET	A	86	-11.867	41.111	57.587	1.00	25.81
	ATOM	660	CG	MET	A	86	-12.681	41.288	56.336	1.00	27.23
	ATOM	661	SD	MET	A	86	-11.733	42.327	55.236	1.00	34.75
40	ATOM	662	CE	MET	A	86	-12.733	42.250	53.731	1.00	34.07
	ATOM	663	N	GLU	A	87	-14.383	38.690	58.005	1.00	37.91
	ATOM	664	CA	GLU	A	87	-14.920	37.509	57.352	1.00	37.56
	ATOM	665	C	GLU	A	87	-15.419	37.749	55.916	1.00	38.67
	ATOM	666	O	GLU	A	87	-16.161	38.678	55.590	1.00	35.07
45	ATOM	667	CB	GLU	A	87	-15.916	36.790	58.244	1.00	37.42
	ATOM	668	CG	GLU	A	87	-16.428	35.494	57.598	1.00	42.93
	ATOM	669	CD	GLU	A	87	-17.485	34.869	58.463	1.00	98.12
	ATOM	670	OE1	GLU	A	87	-18.518	35.442	58.765	1.00	100.00
	ATOM	671	OE2	GLU	A	87	-17.169	33.668	58.884	1.00	97.75
50	ATOM	672	N	ILE	A	88	-14.951	36.912	55.008	1.00	35.85
	ATOM	673	CA	ILE	A	88	-15.335	37.017	53.619	1.00	34.90
	ATOM	674	C	ILE	A	88	-16.128	35.804	53.112	1.00	43.97
	ATOM	675	O	ILE	A	88	-15.841	34.637	53.416	1.00	40.77
	ATOM	676	CB	ILE	A	88	-14.186	37.383	52.728	1.00	36.05
55	ATOM	677	CG1	ILE	A	88	-13.523	38.648	53.250	1.00	33.06
	ATOM	678	CG2	ILE	A	88	-14.681	37.567	51.297	1.00	40.76
	ATOM	679	CD1	ILE	A	88	-12.247	38.964	52.466	1.00	23.51
	ATOM	680	N	SER	A	89	-17.184	36.123	52.360	1.00	44.09
	ATOM	681	CA	SER	A	89	-18.102	35.143	51.786	1.00	45.80
60	ATOM	682	C	SER	A	89	-17.731	34.761	50.373	1.00	45.34
	ATOM	683	O	SER	A	89	-17.690	35.614	49.475	1.00	42.76
	ATOM	684	CB	SER	A	89	-19.556	35.586	51.839	1.00	50.73
	ATOM	685	OG	SER	A	89	-19.993	35.504	53.187	1.00	74.19
	ATOM	686	N	LEU	A	90	-17.458	33.462	50.220	1.00	40.59
	ATOM	687	CA	LEU	A	90	-17.093	32.938	48.923	1.00	42.06
	ATOM	688	C	LEU	A	90	-18.339	32.535	48.139	1.00	46.06
	ATOM	689	O	LEU	A	90	-19.189	31.774	48.630	1.00	45.88
	ATOM	690	CB	LEU	A	90	-16.141	31.743	49.082	1.00	42.14

	ATOM	691	CG	LEU	A	90	-15.105	31.978	50.161	1.00	45.92
	ATOM	692	CD1	LEU	A	90	-14.251	30.708	50.278	1.00	47.05
	ATOM	693	CD2	LEU	A	90	-14.260	33.174	49.738	1.00	48.82
5	ATOM	694	N	PRO	A	91	-18.430	33.064	46.926	1.00	45.82
	ATOM	695	CA	PRO	A	91	-19.562	32.786	46.048	1.00	49.29
	ATOM	696	C	PRO	A	91	-19.576	31.355	45.482	1.00	56.99
	ATOM	697	O	PRO	A	91	-20.552	30.965	44.859	1.00	55.61
	ATOM	698	CB	PRO	A	91	-19.453	33.799	44.909	1.00	49.61
10	ATOM	699	CG	PRO	A	91	-18.042	34.369	44.955	1.00	53.03
	ATOM	700	CD	PRO	A	91	-17.382	33.839	46.221	1.00	46.47
	ATOM	701	N	ILE	A	92	-18.506	30.582	45.696	1.00	55.26
	ATOM	702	CA	ILE	A	92	-18.422	29.211	45.223	1.00	58.60
	ATOM	703	C	ILE	A	92	-17.760	28.334	46.273	1.00	58.73
	ATOM	704	O	ILE	A	92	-16.685	28.673	46.724	1.00	61.40
15	ATOM	705	CB	ILE	A	92	-17.621	29.101	43.927	1.00	64.96
	ATOM	706	CG1	ILE	A	92	-18.422	29.655	42.750	1.00	68.88
	ATOM	707	CG2	ILE	A	92	-17.258	27.642	43.666	1.00	65.48
	ATOM	708	CD1	ILE	A	92	-17.579	30.091	41.549	1.00	81.60
20	ATOM	709	N	ALA	A	93	-18.335	27.210	46.673	1.00	47.92
	ATOM	710	CA	ALA	A	93	-17.613	26.441	47.657	1.00	44.97
	ATOM	711	C	ALA	A	93	-16.291	26.029	47.044	1.00	53.08
	ATOM	712	O	ALA	A	93	-16.279	25.772	45.841	1.00	54.26
	ATOM	713	CB	ALA	A	93	-18.384	25.220	48.121	1.00	44.53
25	ATOM	714	N	LEU	A	94	-15.199	25.994	47.827	1.00	46.91
	ATOM	715	CA	LEU	A	94	-13.894	25.607	47.304	1.00	43.41
	ATOM	716	C	LEU	A	94	-13.570	24.240	47.797	1.00	46.24
	ATOM	717	O	LEU	A	94	-14.042	23.826	48.851	1.00	47.66
	ATOM	718	CB	LEU	A	94	-12.715	26.455	47.800	1.00	42.71
	ATOM	719	CG	LEU	A	94	-12.601	27.799	47.109	1.00	48.37
30	ATOM	720	CD1	LEU	A	94	-11.307	28.510	47.507	1.00	45.33
	ATOM	721	CD2	LEU	A	94	-12.659	27.584	45.600	1.00	57.15
	ATOM	722	N	SER	A	95	-12.744	23.561	47.039	1.00	43.22
	ATOM	723	CA	SER	A	95	-12.335	22.250	47.476	1.00	42.38
35	ATOM	724	C	SER	A	95	-10.834	22.238	47.628	1.00	36.34
	ATOM	725	O	SER	A	95	-10.131	23.166	47.218	1.00	34.42
	ATOM	726	CB	SER	A	95	-12.896	21.096	46.670	1.00	48.01
	ATOM	727	OG	SER	A	95	-14.209	20.867	47.143	1.00	64.55
	ATOM	728	N	LYS	A	96	-10.334	21.200	48.239	1.00	32.05
40	ATOM	729	CA	LYS	A	96	-8.899	21.179	48.443	1.00	31.11
	ATOM	730	C	LYS	A	96	-8.126	21.687	47.252	1.00	32.56
	ATOM	731	O	LYS	A	96	-8.513	21.469	46.127	1.00	39.67
	ATOM	732	CB	LYS	A	96	-8.395	19.815	48.908	1.00	35.42
	ATOM	733	CG	LYS	A	96	-9.282	19.215	49.993	1.00	75.37
	ATOM	734	CD	LYS	A	96	-8.738	17.938	50.628	1.00	90.56
45	ATOM	735	CE	LYS	A	96	-9.552	17.461	51.829	1.00	100.00
	ATOM	736	NZ	LYS	A	96	-8.830	16.537	52.728	1.00	100.00
	ATOM	737	N	ASN	A	97	-7.023	22.370	47.483	1.00	24.18
	ATOM	738	CA	ASN	A	97	-6.125	22.870	46.446	1.00	23.26
50	ATOM	739	C	ASN	A	97	-6.635	23.805	45.396	1.00	28.02
	ATOM	740	O	ASN	A	97	-5.916	24.197	44.481	1.00	32.95
	ATOM	741	CB	ASN	A	97	-5.257	21.772	45.817	1.00	29.05
	ATOM	742	CG	ASN	A	97	-4.511	21.024	46.903	1.00	79.22
	ATOM	743	OD1	ASN	A	97	-3.813	21.645	47.725	1.00	66.27
55	ATOM	744	ND2	ASN	A	97	-4.690	19.700	46.926	1.00	89.90
	ATOM	745	N	GLN	A	98	-7.876	24.148	45.539	1.00	29.12
	ATOM	746	CA	GLN	A	98	-8.480	25.068	44.628	1.00	30.69
	ATOM	747	C	GLN	A	98	-8.245	26.455	45.151	1.00	34.12
	ATOM	748	O	GLN	A	98	-8.220	26.673	46.363	1.00	32.27
	ATOM	749	CB	GLN	A	98	-9.979	24.775	44.680	1.00	35.86
60	ATOM	750	CG	GLN	A	98	-10.299	23.404	44.057	1.00	52.64
	ATOM	751	CD	GLN	A	98	-11.618	23.476	43.326	1.00	90.95
	ATOM	752	OE1	GLN	A	98	-12.506	22.646	43.569	1.00	86.29
	ATOM	753	NE2	GLN	A	98	-11.761	24.502	42.477	1.00	83.23
	ATOM	754	N	GLU	A	99	-8.113	27.366	44.212	1.00	34.57

	ATOM	755	CA	GLU	A	99	-7.836	28.767	44.459	1.00	35.24
	ATOM	756	C	GLU	A	99	-8.799	29.788	43.877	1.00	42.30
	ATOM	757	O	GLU	A	99	-9.240	29.696	42.731	1.00	42.60
5	ATOM	758	CB	GLU	A	99	-6.487	29.092	43.786	1.00	35.30
	ATOM	759	CG	GLU	A	99	-5.592	27.856	43.665	1.00	43.60
	ATOM	760	CD	GLU	A	99	-4.164	28.161	43.336	1.00	52.48
	ATOM	761	OE1	GLU	A	99	-3.778	29.191	42.812	1.00	54.31
	ATOM	762	OE2	GLU	A	99	-3.377	27.171	43.663	1.00	81.49
10	ATOM	763	N	ILE	A	100	-9.036	30.820	44.680	1.00	38.20
	ATOM	764	CA	ILE	A	100	-9.820	31.975	44.306	1.00	37.64
	ATOM	765	C	ILE	A	100	-8.939	33.193	44.501	1.00	47.53
	ATOM	766	O	ILE	A	100	-7.889	33.202	45.153	1.00	46.12
	ATOM	767	CB	ILE	A	100	-11.101	32.274	45.077	1.00	41.53
	ATOM	768	CG1	ILE	A	100	-11.070	31.895	46.542	1.00	44.24
15	ATOM	769	CG2	ILE	A	100	-12.407	31.918	44.383	1.00	43.12
	ATOM	770	CD1	ILE	A	100	-10.379	32.958	47.391	1.00	63.56
	ATOM	771	N	VAL	A	101	-9.398	34.268	43.917	1.00	44.45
	ATOM	772	CA	VAL	A	101	-8.706	35.510	44.086	1.00	41.52
20	ATOM	773	C	VAL	A	101	-9.710	36.529	44.565	1.00	44.93
	ATOM	774	O	VAL	A	101	-10.794	36.664	44.001	1.00	43.66
	ATOM	775	CB	VAL	A	101	-7.707	35.976	43.051	1.00	39.34
	ATOM	776	CG1	VAL	A	101	-7.825	35.219	41.749	1.00	38.49
	ATOM	777	CG2	VAL	A	101	-7.829	37.479	42.892	1.00	37.47
25	ATOM	778	N	ILE	A	102	-9.338	37.145	45.681	1.00	36.04
	ATOM	779	CA	ILE	A	102	-10.137	38.122	46.378	1.00	30.61
	ATOM	780	C	ILE	A	102	-9.440	39.463	46.313	1.00	33.94
	ATOM	781	O	ILE	A	102	-8.294	39.614	46.776	1.00	33.48
	ATOM	782	CB	ILE	A	102	-10.260	37.610	47.798	1.00	32.63
30	ATOM	783	CG1	ILE	A	102	-10.394	36.098	47.737	1.00	27.27
	ATOM	784	CG2	ILE	A	102	-11.463	38.204	48.502	1.00	37.40
	ATOM	785	CD1	ILE	A	102	-10.628	35.451	49.093	1.00	28.19
	ATOM	786	N	GLU	A	103	-10.116	40.423	45.676	1.00	26.53
	ATOM	787	CA	GLU	A	103	-9.549	41.755	45.548	1.00	27.13
35	ATOM	788	C	GLU	A	103	-10.186	42.615	46.601	1.00	37.89
	ATOM	789	O	GLU	A	103	-11.408	42.630	46.710	1.00	40.69
	ATOM	790	CB	GLU	A	103	-9.731	42.362	44.169	1.00	28.43
	ATOM	791	CG	GLU	A	103	-8.946	43.670	44.000	1.00	39.11
	ATOM	792	CD	GLU	A	103	-9.263	44.343	42.690	1.00	94.53
40	ATOM	793	OE1	GLU	A	103	-10.236	45.069	42.526	1.00	100.00
	ATOM	794	OE2	GLU	A	103	-8.388	44.051	41.750	1.00	98.87
	ATOM	795	N	ILE	A	104	-9.355	43.252	47.416	1.00	36.94
	ATOM	796	CA	ILE	A	104	-9.847	44.076	48.512	1.00	35.20
	ATOM	797	C	ILE	A	104	-9.459	45.532	48.378	1.00	38.03
45	ATOM	798	O	ILE	A	104	-8.277	45.856	48.192	1.00	34.77
	ATOM	799	CB	ILE	A	104	-9.504	43.541	49.891	1.00	38.11
	ATOM	800	CG1	ILE	A	104	-10.003	42.125	50.061	1.00	34.81
	ATOM	801	CG2	ILE	A	104	-10.128	44.420	50.967	1.00	39.18
	ATOM	802	CD1	ILE	A	104	-9.015	41.335	50.896	1.00	30.92
50	ATOM	803	N	SER	A	105	-10.529	46.353	48.429	1.00	42.46
	ATOM	804	CA	SER	A	105	-10.510	47.811	48.323	1.00	42.36
	ATOM	805	C	SER	A	105	-10.400	48.380	49.723	1.00	34.84
	ATOM	806	O	SER	A	105	-11.328	48.305	50.510	1.00	31.47
	ATOM	807	CB	SER	A	105	-11.731	48.328	47.575	1.00	45.94
55	ATOM	808	OG	SER	A	105	-11.386	48.517	46.209	1.00	47.45
	ATOM	809	N	PHE	A	106	-9.228	48.910	50.031	1.00	33.13
	ATOM	810	CA	PHE	A	106	-8.995	49.380	51.385	1.00	29.35
	ATOM	811	C	PHE	A	106	-8.269	50.713	51.494	1.00	28.86
	ATOM	812	O	PHE	A	106	-7.550	51.199	50.577	1.00	24.93
60	ATOM	813	CB	PHE	A	106	-8.134	48.290	52.115	1.00	27.98
	ATOM	814	CG	PHE	A	106	-6.700	48.251	51.597	1.00	27.57
	ATOM	815	CD1	PHE	A	106	-6.326	47.411	50.550	1.00	30.25
	ATOM	816	CD2	PHE	A	106	-5.709	49.085	52.123	1.00	31.01
	ATOM	817	CE1	PHE	A	106	-5.020	47.429	50.058	1.00	33.05
	ATOM	818	CE2	PHE	A	106	-4.401	49.136	51.641	1.00	30.90

	ATOM	819	CZ	PHE A 106	-4.058	48.291	50.588	1.00	30.89
	ATOM	820	N	GLU A 107	-8.472	51.231	52.717	1.00	31.09
	ATOM	821	CA	GLU A 107	-7.864	52.476	53.183	1.00	36.36
	ATOM	822	C	GLU A 107	-7.271	52.257	54.583	1.00	33.60
5	ATOM	823	O	GLU A 107	-7.945	51.706	55.468	1.00	34.10
	ATOM	824	CB	GLU A 107	-8.918	53.613	53.297	1.00	40.08
	ATOM	825	CG	GLU A 107	-8.512	55.003	52.740	1.00	64.89
	ATOM	826	CD	GLU A 107	-9.717	55.892	52.518	1.00	100.00
10	ATOM	827	OE1	GLU A 107	-10.367	55.977	51.476	1.00	100.00
	ATOM	828	OE2	GLU A 107	-10.011	56.578	53.592	1.00	86.39
	ATOM	829	N	THR A 108	-6.019	52.681	54.788	1.00	32.30
	ATOM	830	CA	THR A 108	-5.408	52.538	56.114	1.00	35.58
	ATOM	831	C	THR A 108	-5.733	53.774	56.938	1.00	41.15
	ATOM	832	O	THR A 108	-6.045	54.814	56.360	1.00	39.58
15	ATOM	833	CB	THR A 108	-3.864	52.454	56.068	1.00	36.81
	ATOM	834	OG1	THR A 108	-3.268	53.544	55.381	1.00	33.05
	ATOM	835	CG2	THR A 108	-3.418	51.100	55.560	1.00	27.41
	ATOM	836	N	SER A 109	-5.608	53.647	58.258	1.00	34.04
	ATOM	837	CA	SER A 109	-5.823	54.723	59.207	1.00	27.85
20	ATOM	838	C	SER A 109	-4.559	55.540	59.361	1.00	33.11
	ATOM	839	O	SER A 109	-3.447	55.011	59.228	1.00	29.81
	ATOM	840	CB	SER A 109	-6.278	54.179	60.541	1.00	26.33
	ATOM	841	OG	SER A 109	-6.058	55.183	61.512	1.00	36.95
25	ATOM	842	N	PRO A 110	-4.671	56.854	59.614	1.00	33.05
	ATOM	843	CA	PRO A 110	-3.403	57.541	59.715	1.00	31.04
	ATOM	844	C	PRO A 110	-2.685	57.099	60.978	1.00	31.17
	ATOM	845	O	PRO A 110	-1.461	57.191	61.092	1.00	32.61
	ATOM	846	CB	PRO A 110	-3.586	59.039	59.464	1.00	32.40
30	ATOM	847	CG	PRO A 110	-5.026	59.160	58.980	1.00	34.90
	ATOM	848	CD	PRO A 110	-5.736	57.884	59.448	1.00	32.97
	ATOM	849	N	LYS A 111	-3.467	56.512	61.870	1.00	20.99
	ATOM	850	CA	LYS A 111	-2.943	55.961	63.112	1.00	22.35
	ATOM	851	C	LYS A 111	-2.509	54.489	63.004	1.00	26.37
35	ATOM	852	O	LYS A 111	-2.436	53.796	64.033	1.00	25.46
	ATOM	853	CB	LYS A 111	-3.928	56.106	64.272	1.00	26.02
	ATOM	854	CG	LYS A 111	-4.211	57.544	64.706	1.00	69.25
	ATOM	855	CD	LYS A 111	-5.508	58.112	64.136	1.00	98.06
	ATOM	856	CE	LYS A 111	-6.573	58.381	65.191	1.00	100.00
40	ATOM	857	NZ	LYS A 111	-7.898	58.618	64.591	1.00	100.00
	ATOM	858	N	SER A 112	-2.237	54.000	61.775	1.00	25.30
	ATOM	859	CA	SER A 112	-1.816	52.609	61.553	1.00	22.00
	ATOM	860	C	SER A 112	-0.545	52.268	62.367	1.00	19.89
	ATOM	861	O	SER A 112	0.496	52.894	62.223	1.00	23.91
45	ATOM	862	CB	SER A 112	-1.541	52.354	60.072	1.00	15.83
	ATOM	863	OG	SER A 112	-0.793	51.153	59.917	1.00	19.70
	ATOM	864	N	SER A 113	-0.613	51.245	63.195	1.00	18.58
	ATOM	865	CA	SER A 113	0.525	50.842	64.006	1.00	18.61
	ATOM	866	C	SER A 113	1.734	50.356	63.211	1.00	24.91
50	ATOM	867	O	SER A 113	2.859	50.239	63.718	1.00	22.90
	ATOM	868	CB	SER A 113	0.114	49.900	65.120	1.00	19.15
	ATOM	869	OG	SER A 113	-0.312	48.649	64.620	1.00	19.49
	ATOM	870	N	ALA A 114	1.499	50.077	61.937	1.00	19.34
	ATOM	871	CA	ALA A 114	2.541	49.589	61.053	1.00	17.80
55	ATOM	872	C	ALA A 114	3.310	50.728	60.449	1.00	20.40
	ATOM	873	O	ALA A 114	4.371	50.555	59.817	1.00	19.02
	ATOM	874	CB	ALA A 114	1.850	48.892	59.883	1.00	16.86
	ATOM	875	N	LEU A 115	2.724	51.914	60.607	1.00	17.74
	ATOM	876	CA	LEU A 115	3.358	53.026	59.960	1.00	19.94
60	ATOM	877	C	LEU A 115	3.643	54.215	60.826	1.00	19.68
	ATOM	878	O	LEU A 115	3.052	54.427	61.870	1.00	24.55
	ATOM	879	CB	LEU A 115	2.440	53.538	58.829	1.00	22.23
	ATOM	880	CG	LEU A 115	1.963	52.455	57.873	1.00	25.61
	ATOM	881	CD1	LEU A 115	0.865	53.050	57.001	1.00	29.64
	ATOM	882	CD2	LEU A 115	3.101	51.926	56.999	1.00	20.12

	ATOM	883	N	GLN	A	116	4.578	54.971	60.308	1.00	18.97
	ATOM	884	CA	GLN	A	116	4.990	56.249	60.865	1.00	22.74
	ATOM	885	C	GLN	A	116	5.083	57.265	59.739	1.00	24.89
5	ATOM	886	O	GLN	A	116	5.911	57.131	58.823	1.00	20.48
	ATOM	887	CB	GLN	A	116	6.265	56.308	61.706	1.00	23.66
	ATOM	888	CG	GLN	A	116	6.278	57.643	62.492	1.00	31.55
	ATOM	889	CD	GLN	A	116	7.541	57.860	63.291	1.00	28.17
	ATOM	890	OE1	GLN	A	116	8.409	56.973	63.387	1.00	23.94
	ATOM	891	NE2	GLN	A	116	7.681	59.062	63.834	1.00	24.04
10	ATOM	892	N	TRP	A	117	4.202	58.261	59.817	1.00	25.51
	ATOM	893	CA	TRP	A	117	4.154	59.323	58.829	1.00	24.50
	ATOM	894	C	TRP	A	117	4.873	60.524	59.411	1.00	29.40
	ATOM	895	O	TRP	A	117	4.437	61.044	60.438	1.00	32.14
	ATOM	896	CB	TRP	A	117	2.697	59.715	58.631	1.00	22.31
15	ATOM	897	CG	TRP	A	117	1.865	58.712	57.898	1.00	24.18
	ATOM	898	CD1	TRP	A	117	1.075	57.767	58.475	1.00	27.24
	ATOM	899	CD2	TRP	A	117	1.671	58.606	56.469	1.00	23.00
	ATOM	900	NE1	TRP	A	117	0.429	57.046	57.492	1.00	26.67
	ATOM	901	CE2	TRP	A	117	0.772	57.531	56.253	1.00	26.59
20	ATOM	902	CE3	TRP	A	117	2.185	59.296	55.364	1.00	24.86
	ATOM	903	CZ2	TRP	A	117	0.347	57.145	54.973	1.00	25.38
	ATOM	904	CZ3	TRP	A	117	1.789	58.900	54.090	1.00	27.68
	ATOM	905	CH2	TRP	A	117	0.868	57.855	53.901	1.00	28.07
	ATOM	906	N	LEU	A	118	5.972	60.918	58.769	1.00	23.97
25	ATOM	907	CA	LEU	A	118	6.813	62.038	59.185	1.00	25.88
	ATOM	908	C	LEU	A	118	6.557	63.335	58.404	1.00	35.42
	ATOM	909	O	LEU	A	118	6.471	63.345	57.171	1.00	37.58
	ATOM	910	CB	LEU	A	118	8.346	61.756	59.042	1.00	24.73
	ATOM	911	CG	LEU	A	118	8.904	60.441	59.630	1.00	31.22
30	ATOM	912	CD1	LEU	A	118	10.425	60.511	59.713	1.00	27.63
	ATOM	913	CD2	LEU	A	118	8.372	60.198	61.033	1.00	35.89
	ATOM	914	N	THR	A	119	6.493	64.452	59.136	1.00	29.43
	ATOM	915	CA	THR	A	119	6.345	65.763	58.528	1.00	26.58
	ATOM	916	C	THR	A	119	7.723	66.117	58.011	1.00	28.74
35	ATOM	917	O	THR	A	119	8.715	65.587	58.515	1.00	33.10
	ATOM	918	CB	THR	A	119	5.913	66.773	59.610	1.00	30.87
	ATOM	919	OG1	THR	A	119	6.959	66.918	60.570	1.00	43.03
	ATOM	920	CG2	THR	A	119	4.662	66.239	60.288	1.00	35.04
	ATOM	921	N	PRO	A	120	7.833	67.008	57.023	1.00	30.76
40	ATOM	922	CA	PRO	A	120	9.151	67.332	56.511	1.00	27.85
	ATOM	923	C	PRO	A	120	10.131	67.791	57.577	1.00	33.68
	ATOM	924	O	PRO	A	120	11.342	67.593	57.442	1.00	34.58
	ATOM	925	CB	PRO	A	120	8.944	68.390	55.431	1.00	29.01
	ATOM	926	CG	PRO	A	120	7.483	68.312	55.046	1.00	29.59
45	ATOM	927	CD	PRO	A	120	6.768	67.680	56.215	1.00	27.06
	ATOM	928	N	GLU	A	121	9.603	68.413	58.628	1.00	36.28
	ATOM	929	CA	GLU	A	121	10.428	68.913	59.735	1.00	41.71
	ATOM	930	C	GLU	A	121	11.155	67.780	60.421	1.00	46.90
	ATOM	931	O	GLU	A	121	12.302	67.911	60.852	1.00	45.40
50	ATOM	932	CB	GLU	A	121	9.653	69.674	60.828	1.00	43.86
	ATOM	933	CG	GLU	A	121	8.117	69.533	60.744	1.00	58.00
	ATOM	934	CD	GLU	A	121	7.497	70.524	59.787	1.00	95.29
	ATOM	935	OE1	GLU	A	121	8.029	71.583	59.481	1.00	100.00
	ATOM	936	OE2	GLU	A	121	6.343	70.133	59.295	1.00	59.19
55	ATOM	937	N	GLN	A	122	10.419	66.674	60.509	1.00	40.04
	ATOM	938	CA	GLN	A	122	10.898	65.442	61.105	1.00	34.75
	ATOM	939	C	GLN	A	122	11.970	64.761	60.246	1.00	38.46
	ATOM	940	O	GLN	A	122	12.575	63.775	60.657	1.00	36.92
	ATOM	941	CB	GLN	A	122	9.688	64.505	61.280	1.00	31.67
60	ATOM	942	CG	GLN	A	122	9.002	64.705	62.627	1.00	23.93
	ATOM	943	CD	GLN	A	122	7.722	63.930	62.790	1.00	33.52
	ATOM	944	OE1	GLN	A	122	6.754	64.126	62.036	1.00	38.04
	ATOM	945	NE2	GLN	A	122	7.682	63.071	63.806	1.00	30.07
	ATOM	946	N	THR	A	123	12.202	65.252	59.018	1.00	36.12

	ATOM	947	CA	THR A 123	13.166	64.626	58.102	1.00	33.51
	ATOM	948	C	THR A 123	14.492	65.315	58.131	1.00	36.18
	ATOM	949	O	THR A 123	14.617	66.359	58.755	1.00	40.90
5	ATOM	950	CB	THR A 123	12.671	64.577	56.637	1.00	31.27
	ATOM	951	OG1	THR A 123	12.565	65.900	56.137	1.00	38.36
	ATOM	952	CG2	THR A 123	11.300	63.912	56.566	1.00	21.97
	ATOM	953	N	SER A 124	15.470	64.743	57.448	1.00	30.18
	ATOM	954	CA	SER A 124	16.767	65.373	57.441	1.00	30.34
10	ATOM	955	C	SER A 124	16.774	66.616	56.579	1.00	39.98
	ATOM	956	O	SER A 124	17.434	67.609	56.904	1.00	42.72
	ATOM	957	CB	SER A 124	17.881	64.484	56.905	1.00	31.00
	ATOM	958	OG	SER A 124	18.222	63.434	57.794	1.00	41.86
	ATOM	959	N	GLY A 125	16.061	66.515	55.460	1.00	33.12
15	ATOM	960	CA	GLY A 125	16.018	67.566	54.465	1.00	33.55
	ATOM	961	C	GLY A 125	15.115	68.725	54.777	1.00	39.54
	ATOM	962	O	GLY A 125	15.324	69.828	54.271	1.00	43.14
	ATOM	963	N	LYS A 126	14.105	68.443	55.574	1.00	34.88
	ATOM	964	CA	LYS A 126	13.198	69.487	55.950	1.00	35.05
20	ATOM	965	C	LYS A 126	12.225	69.949	54.863	1.00	43.18
	ATOM	966	O	LYS A 126	11.309	70.745	55.156	1.00	41.50
	ATOM	967	CB	LYS A 126	13.976	70.652	56.539	1.00	34.53
	ATOM	968	CG	LYS A 126	15.059	70.188	57.493	1.00	33.17
	ATOM	969	CD	LYS A 126	14.496	69.475	58.710	1.00	28.58
25	ATOM	970	CE	LYS A 126	15.597	69.005	59.656	1.00	35.70
	ATOM	971	NZ	LYS A 126	15.099	68.062	60.666	1.00	53.76
	ATOM	972	N	GLU A 127	12.397	69.456	53.632	1.00	34.06
	ATOM	973	CA	GLU A 127	11.497	69.879	52.579	1.00	32.35
	ATOM	974	C	GLU A 127	10.481	68.870	52.125	1.00	41.06
30	ATOM	975	O	GLU A 127	9.583	69.214	51.369	1.00	41.24
	ATOM	976	CB	GLU A 127	12.231	70.396	51.348	1.00	32.73
	ATOM	977	CG	GLU A 127	13.167	71.542	51.745	1.00	41.87
	ATOM	978	CD	GLU A 127	12.515	72.883	51.595	1.00	68.20
	ATOM	979	OE1	GLU A 127	11.668	73.152	50.750	1.00	85.44
35	ATOM	980	OE2	GLU A 127	13.008	73.747	52.442	1.00	94.35
	ATOM	981	N	HIS A 128	10.603	67.636	52.556	1.00	38.36
	ATOM	982	CA	HIS A 128	9.649	66.635	52.130	1.00	36.38
	ATOM	983	C	HIS A 128	9.272	65.683	53.241	1.00	34.84
	ATOM	984	O	HIS A 128	10.054	65.414	54.148	1.00	33.92
40	ATOM	985	CB	HIS A 128	10.311	65.761	51.062	1.00	39.67
	ATOM	986	CG	HIS A 128	10.775	66.438	49.801	1.00	44.07
	ATOM	987	ND1	HIS A 128	9.885	66.842	48.810	1.00	44.77
	ATOM	988	CD2	HIS A 128	12.031	66.713	49.378	1.00	44.57
	ATOM	989	CE1	HIS A 128	10.611	67.349	47.836	1.00	44.22
45	ATOM	990	NE2	HIS A 128	11.905	67.291	48.144	1.00	44.43
	ATOM	991	N	PRO A 129	8.084	65.124	53.134	1.00	30.93
	ATOM	992	CA	PRO A 129	7.662	64.165	54.115	1.00	30.73
	ATOM	993	C	PRO A 129	8.383	62.819	53.902	1.00	32.60
	ATOM	994	O	PRO A 129	9.307	62.688	53.088	1.00	30.87
50	ATOM	995	CB	PRO A 129	6.152	64.031	53.955	1.00	28.47
	ATOM	996	CG	PRO A 129	5.892	64.328	52.506	1.00	28.59
	ATOM	997	CD	PRO A 129	7.023	65.264	52.115	1.00	29.83
	ATOM	998	N	TYR A 130	7.991	61.816	54.680	1.00	24.05
	ATOM	999	CA	TYR A 130	8.641	60.521	54.581	1.00	23.32
55	ATOM	1000	C	TYR A 130	7.739	59.482	55.193	1.00	27.11
	ATOM	1001	O	TYR A 130	7.054	59.735	56.169	1.00	25.99
	ATOM	1002	CB	TYR A 130	9.927	60.574	55.425	1.00	24.39
	ATOM	1003	CG	TYR A 130	10.932	59.447	55.270	1.00	26.41
	ATOM	1004	CD1	TYR A 130	10.681	58.134	55.683	1.00	26.44
60	ATOM	1005	CD2	TYR A 130	12.195	59.750	54.765	1.00	26.16
	ATOM	1006	CE1	TYR A 130	11.650	57.136	55.575	1.00	19.38
	ATOM	1007	CE2	TYR A 130	13.179	58.768	54.644	1.00	26.74
	ATOM	1008	CZ	TYR A 130	12.900	57.463	55.047	1.00	21.41
	ATOM	1009	OH	TYR A 130	13.904	56.550	54.915	1.00	24.90
	ATOM	1010	N	LEU A 131	7.704	58.299	54.639	1.00	26.48

	ATOM	1011	CA	LEU A 131	6.846	57.288	55.247	1.00	26.34
	ATOM	1012	C	LEU A 131	7.626	55.976	55.315	1.00	29.76
	ATOM	1013	O	LEU A 131	8.394	55.705	54.383	1.00	30.08
5	ATOM	1014	CB	LEU A 131	5.511	57.120	54.477	1.00	24.01
	ATOM	1015	CG	LEU A 131	4.873	55.750	54.658	1.00	25.25
	ATOM	1016	CD1	LEU A 131	3.923	55.774	55.850	1.00	22.47
	ATOM	1017	CD2	LEU A 131	4.091	55.343	53.420	1.00	26.97
	ATOM	1018	N	PHE A 132	7.467	55.207	56.412	1.00	24.85
10	ATOM	1019	CA	PHE A 132	8.122	53.906	56.569	1.00	22.86
	ATOM	1020	C	PHE A 132	7.245	52.905	57.318	1.00	23.01
	ATOM	1021	O	PHE A 132	6.475	53.255	58.209	1.00	20.93
	ATOM	1022	CB	PHE A 132	9.575	53.929	57.083	1.00	26.88
	ATOM	1023	CG	PHE A 132	9.667	54.245	58.567	1.00	29.09
	ATOM	1024	CD1	PHE A 132	9.345	53.286	59.532	1.00	28.26
15	ATOM	1025	CD2	PHE A 132	10.052	55.514	59.005	1.00	29.01
	ATOM	1026	CE1	PHE A 132	9.422	53.564	60.899	1.00	23.76
	ATOM	1027	CE2	PHE A 132	10.124	55.822	60.364	1.00	26.04
	ATOM	1028	CZ	PHE A 132	9.808	54.842	61.304	1.00	20.79
20	ATOM	1029	N	SER A 133	7.319	51.632	56.959	1.00	20.01
	ATOM	1030	CA	SER A 133	6.487	50.644	57.614	1.00	18.49
	ATOM	1031	C	SER A 133	7.343	49.758	58.499	1.00	20.07
	ATOM	1032	O	SER A 133	8.565	49.721	58.408	1.00	20.93
	ATOM	1033	CB	SER A 133	5.820	49.721	56.600	1.00	21.00
25	ATOM	1034	OG	SER A 133	6.794	48.889	55.979	1.00	19.33
	ATOM	1035	N	GLN A 134	6.652	49.019	59.349	1.00	17.53
	ATOM	1036	CA	GLN A 134	7.307	48.078	60.224	1.00	16.15
	ATOM	1037	C	GLN A 134	6.253	47.039	60.602	1.00	21.22
	ATOM	1038	O	GLN A 134	5.445	47.228	61.500	1.00	20.50
30	ATOM	1039	CB	GLN A 134	8.094	48.787	61.354	1.00	15.03
	ATOM	1040	CG	GLN A 134	8.497	47.798	62.475	1.00	22.80
	ATOM	1041	CD	GLN A 134	9.449	46.740	61.953	1.00	32.47
	ATOM	1042	OE1	GLN A 134	10.430	47.087	61.278	1.00	20.01
	ATOM	1043	NE2	GLN A 134	9.174	45.470	62.246	1.00	18.65
35	ATOM	1044	N	CYS A 135	6.173	45.933	59.853	1.00	20.27
	ATOM	1045	CA	CYS A 135	5.121	44.948	60.131	1.00	19.65
	ATOM	1046	C	CYS A 135	5.386	43.913	61.204	1.00	19.96
	ATOM	1047	O	CYS A 135	4.454	43.422	61.822	1.00	16.67
	ATOM	1048	CB	CYS A 135	4.662	44.209	58.847	1.00	18.98
40	ATOM	1049	SG	CYS A 135	4.157	45.396	57.599	1.00	22.04
	ATOM	1050	N	GLN A 136	6.646	43.517	61.379	1.00	20.85
	ATOM	1051	CA	GLN A 136	6.936	42.489	62.366	1.00	19.49
	ATOM	1052	C	GLN A 136	6.654	43.049	63.750	1.00	17.79
	ATOM	1053	O	GLN A 136	7.052	44.180	64.026	1.00	19.64
45	ATOM	1054	CB	GLN A 136	8.388	41.945	62.208	1.00	18.24
	ATOM	1055	CG	GLN A 136	8.670	40.708	63.090	1.00	15.69
	ATOM	1056	CD	GLN A 136	10.104	40.218	62.989	1.00	18.82
	ATOM	1057	OE1	GLN A 136	10.987	40.986	62.591	1.00	21.40
	ATOM	1058	NE2	GLN A 136	10.344	38.964	63.370	1.00	20.32
50	ATOM	1059	N	ALA A 137	5.965	42.280	64.605	1.00	16.00
	ATOM	1060	CA	ALA A 137	5.459	40.921	64.361	1.00	13.64
	ATOM	1061	C	ALA A 137	4.096	40.891	63.680	1.00	20.13
	ATOM	1062	O	ALA A 137	3.915	40.228	62.670	1.00	19.24
	ATOM	1063	CB	ALA A 137	5.345	40.115	65.651	1.00	13.33
55	ATOM	1064	N	ILE A 138	3.130	41.599	64.237	1.00	17.65
	ATOM	1065	CA	ILE A 138	1.812	41.538	63.646	1.00	17.65
	ATOM	1066	C	ILE A 138	1.182	42.859	63.250	1.00	17.89
	ATOM	1067	O	ILE A 138	0.080	43.166	63.648	1.00	18.12
	ATOM	1068	CB	ILE A 138	0.905	40.782	64.584	1.00	21.50
60	ATOM	1069	CG1	ILE A 138	0.909	41.474	65.949	1.00	23.03
	ATOM	1070	CG2	ILE A 138	1.365	39.325	64.715	1.00	17.85
	ATOM	1071	CD1	ILE A 138	-0.197	40.954	66.864	1.00	20.51
	ATOM	1072	N	HIS A 139	1.883	43.639	62.477	1.00	14.35
	ATOM	1073	CA	HIS A 139	1.347	44.918	62.069	1.00	20.04
	ATOM	1074	C	HIS A 139	0.947	44.960	60.586	1.00	22.63



	ATOM	1075	O	HIS	A	139	0.405	45.970	60.153	1.00	21.50
	ATOM	1076	CB	HIS	A	139	2.294	46.104	62.418	1.00	20.69
	ATOM	1077	CG	HIS	A	139	2.542	46.181	63.905	1.00	22.28
5	ATOM	1078	ND1	HIS	A	139	1.598	46.682	64.780	1.00	21.42
	ATOM	1079	CD2	HIS	A	139	3.607	45.772	64.641	1.00	20.30
	ATOM	1080	CE1	HIS	A	139	2.102	46.574	66.004	1.00	21.50
	ATOM	1081	NE2	HIS	A	139	3.316	46.043	65.948	1.00	20.79
	ATOM	1082	N	CYS	A	140	1.231	43.891	59.817	1.00	23.70
10	ATOM	1083	CA	CYS	A	140	0.854	43.842	58.393	1.00	20.51
	ATOM	1084	C	CYS	A	140	-0.641	44.154	58.238	1.00	18.21
	ATOM	1085	O	CYS	A	140	-1.080	44.926	57.384	1.00	21.51
	ATOM	1086	CB	CYS	A	140	1.244	42.523	57.676	1.00	18.69
	ATOM	1087	SG	CYS	A	140	1.220	42.744	55.865	1.00	23.45
	ATOM	1088	N	ARG	A	141	-1.403	43.548	59.139	1.00	17.49
15	ATOM	1089	CA	ARG	A	141	-2.849	43.681	59.236	1.00	19.29
	ATOM	1090	C	ARG	A	141	-3.305	45.119	59.365	1.00	29.79
	ATOM	1091	O	ARG	A	141	-4.507	45.415	59.189	1.00	29.48
	ATOM	1092	CB	ARG	A	141	-3.435	42.857	60.368	1.00	19.28
20	ATOM	1093	CG	ARG	A	141	-3.041	43.331	61.779	1.00	17.77
	ATOM	1094	CD	ARG	A	141	-3.499	42.358	62.853	1.00	11.79
	ATOM	1095	NE	ARG	A	141	-2.697	41.124	62.834	1.00	18.11
	ATOM	1096	CZ	ARG	A	141	-2.823	40.137	63.712	1.00	23.12
	ATOM	1097	NH1	ARG	A	141	-3.704	40.177	64.695	1.00	16.74
25	ATOM	1098	NH2	ARG	A	141	-2.046	39.061	63.605	1.00	17.67
	ATOM	1099	N	ALA	A	142	-2.326	45.981	59.695	1.00	22.16
	ATOM	1100	CA	ALA	A	142	-2.572	47.406	59.886	1.00	21.34
	ATOM	1101	C	ALA	A	142	-2.316	48.113	58.587	1.00	30.29
	ATOM	1102	O	ALA	A	142	-2.436	49.334	58.521	1.00	28.98
30	ATOM	1103	CB	ALA	A	142	-1.797	48.097	61.022	1.00	18.86
	ATOM	1104	N	ILE	A	143	-1.929	47.346	57.563	1.00	25.27
	ATOM	1105	CA	ILE	A	143	-1.681	47.999	56.299	1.00	24.86
	ATOM	1106	C	ILE	A	143	-2.654	47.464	55.249	1.00	33.21
	ATOM	1107	O	ILE	A	143	-3.086	48.191	54.363	1.00	30.61
35	ATOM	1108	CB	ILE	A	143	-0.279	47.766	55.801	1.00	27.48
	ATOM	1109	CG1	ILE	A	143	0.735	48.464	56.683	1.00	25.48
	ATOM	1110	CG2	ILE	A	143	-0.178	48.243	54.355	1.00	30.86
	ATOM	1111	CD1	ILE	A	143	2.134	48.057	56.257	1.00	21.10
	ATOM	1112	N	LEU	A	144	-2.968	46.170	55.368	1.00	28.50
40	ATOM	1113	CA	LEU	A	144	-3.882	45.474	54.469	1.00	27.04
	ATOM	1114	C	LEU	A	144	-4.383	44.197	55.122	1.00	31.13
	ATOM	1115	O	LEU	A	144	-3.786	43.658	56.047	1.00	31.11
	ATOM	1116	CB	LEU	A	144	-3.260	45.191	53.076	1.00	27.85
	ATOM	1117	CG	LEU	A	144	-1.930	44.437	53.144	1.00	33.41
45	ATOM	1118	CD1	LEU	A	144	-2.147	42.925	53.111	1.00	34.28
	ATOM	1119	CD2	LEU	A	144	-0.919	44.879	52.090	1.00	30.37
	ATOM	1120	N	PRO	A	145	-5.499	43.703	54.628	1.00	28.27
	ATOM	1121	CA	PRO	A	145	-6.113	42.489	55.143	1.00	25.97
	ATOM	1122	C	PRO	A	145	-5.306	41.275	54.704	1.00	25.80
50	ATOM	1123	O	PRO	A	145	-4.911	41.145	53.543	1.00	26.89
	ATOM	1124	CB	PRO	A	145	-7.527	42.445	54.533	1.00	25.97
	ATOM	1125	CG	PRO	A	145	-7.710	43.760	53.795	1.00	30.32
	ATOM	1126	CD	PRO	A	145	-6.334	44.377	53.597	1.00	26.43
	ATOM	1127	N	CYS	A	146	-5.069	40.391	55.649	1.00	23.44
55	ATOM	1128	CA	CYS	A	146	-4.275	39.215	55.366	1.00	22.20
	ATOM	1129	C	CYS	A	146	-4.338	38.173	56.478	1.00	25.91
	ATOM	1130	O	CYS	A	146	-4.902	38.365	57.556	1.00	24.21
	ATOM	1131	CB	CYS	A	146	-2.794	39.660	55.211	1.00	22.20
	ATOM	1132	SG	CYS	A	146	-2.122	40.656	56.610	1.00	27.07
60	ATOM	1133	N	GLN	A	147	-3.724	37.035	56.188	1.00	20.89
	ATOM	1134	CA	GLN	A	147	-3.599	36.004	57.192	1.00	23.58
	ATOM	1135	C	GLN	A	147	-2.316	36.481	57.865	1.00	28.69
	ATOM	1136	O	GLN	A	147	-1.215	36.252	57.340	1.00	22.63
	ATOM	1137	CB	GLN	A	147	-3.359	34.659	56.495	1.00	24.70
	ATOM	1138	CG	GLN	A	147	-4.631	34.245	55.737	1.00	27.61

	ATOM	1139	CD	GLN	A	147	-4.456	32.860	55.173	1.00	26.33
	ATOM	1140	OE1	GLN	A	147	-3.925	32.699	54.073	1.00	23.99
	ATOM	1141	NE2	GLN	A	147	-4.810	31.863	55.964	1.00	18.80
5	ATOM	1142	N	ASP	A	148	-2.463	37.259	58.942	1.00	20.89
	ATOM	1143	CA	ASP	A	148	-1.291	37.835	59.571	1.00	18.90
	ATOM	1144	C	ASP	A	148	-0.592	36.901	60.547	1.00	24.63
	ATOM	1145	O	ASP	A	148	-0.574	37.083	61.783	1.00	17.53
	ATOM	1146	CB	ASP	A	148	-1.555	39.263	60.107	1.00	22.11
10	ATOM	1147	CG	ASP	A	148	-0.290	40.036	60.382	1.00	23.46
	ATOM	1148	OD1	ASP	A	148	0.830	39.631	60.126	1.00	20.04
	ATOM	1149	OD2	ASP	A	148	-0.520	41.204	60.918	1.00	15.15
	ATOM	1150	N	THR	A	149	-0.023	35.882	59.906	1.00	18.46
	ATOM	1151	CA	THR	A	149	0.687	34.803	60.545	1.00	17.87
	ATOM	1152	C	THR	A	149	1.872	34.337	59.711	1.00	21.17
15	ATOM	1153	O	THR	A	149	1.851	34.344	58.469	1.00	19.34
	ATOM	1154	CB	THR	A	149	-0.253	33.637	60.815	1.00	26.95
	ATOM	1155	OG1	THR	A	149	0.516	32.550	61.300	1.00	22.82
	ATOM	1156	CG2	THR	A	149	-0.967	33.249	59.523	1.00	21.04
20	ATOM	1157	N	PRO	A	150	2.955	34.037	60.439	1.00	22.13
	ATOM	1158	CA	PRO	A	150	4.193	33.603	59.793	1.00	19.85
	ATOM	1159	C	PRO	A	150	4.062	32.165	59.262	1.00	21.47
	ATOM	1160	O	PRO	A	150	4.957	31.652	58.608	1.00	20.72
	ATOM	1161	CB	PRO	A	150	5.303	33.687	60.879	1.00	15.21
25	ATOM	1162	CG	PRO	A	150	4.598	33.656	62.214	1.00	16.09
	ATOM	1163	CD	PRO	A	150	3.182	34.142	61.931	1.00	19.51
	ATOM	1164	N	SER	A	151	2.946	31.502	59.556	1.00	20.72
	ATOM	1165	CA	SER	A	151	2.753	30.139	59.123	1.00	19.30
	ATOM	1166	C	SER	A	151	2.344	30.061	57.674	1.00	24.34
30	ATOM	1167	O	SER	A	151	2.298	28.979	57.111	1.00	24.80
	ATOM	1168	CB	SER	A	151	1.721	29.408	59.969	1.00	22.49
	ATOM	1169	OG	SER	A	151	0.452	30.037	59.850	1.00	23.08
	ATOM	1170	N	VAL	A	152	2.082	31.215	57.085	1.00	22.82
	ATOM	1171	CA	VAL	A	152	1.685	31.325	55.685	1.00	19.43
35	ATOM	1172	C	VAL	A	152	2.725	32.126	54.909	1.00	22.28
	ATOM	1173	O	VAL	A	152	3.185	33.171	55.367	1.00	23.44
	ATOM	1174	CB	VAL	A	152	0.296	31.991	55.596	1.00	19.43
	ATOM	1175	CG1	VAL	A	152	-0.092	32.406	54.175	1.00	16.67
	ATOM	1176	CG2	VAL	A	152	-0.781	31.119	56.239	1.00	19.27
40	ATOM	1177	N	LYS	A	153	3.106	31.656	53.706	1.00	21.18
	ATOM	1178	CA	LYS	A	153	4.085	32.363	52.891	1.00	17.74
	ATOM	1179	C	LYS	A	153	3.527	32.635	51.521	1.00	21.28
	ATOM	1180	O	LYS	A	153	2.866	31.793	50.953	1.00	23.85
	ATOM	1181	CB	LYS	A	153	5.402	31.603	52.767	1.00	21.27
45	ATOM	1182	CG	LYS	A	153	6.115	31.460	54.112	1.00	21.51
	ATOM	1183	CD	LYS	A	153	7.546	30.998	53.962	1.00	21.26
	ATOM	1184	CE	LYS	A	153	8.143	30.501	55.268	1.00	22.91
	ATOM	1185	NZ	LYS	A	153	9.585	30.192	55.152	1.00	21.73
	ATOM	1186	N	LEU	A	154	3.794	33.808	50.990	1.00	18.71
50	ATOM	1187	CA	LEU	A	154	3.268	34.151	49.675	1.00	21.43
	ATOM	1188	C	LEU	A	154	4.245	34.964	48.904	1.00	26.20
	ATOM	1189	O	LEU	A	154	5.175	35.574	49.459	1.00	24.62
	ATOM	1190	CB	LEU	A	154	2.001	35.045	49.770	1.00	22.21
	ATOM	1191	CG	LEU	A	154	2.136	36.216	50.782	1.00	27.62
55	ATOM	1192	CD1	LEU	A	154	1.461	37.505	50.309	1.00	25.48
	ATOM	1193	CD2	LEU	A	154	1.539	35.818	52.132	1.00	28.38
	ATOM	1194	N	THR	A	155	3.982	34.986	47.604	1.00	24.13
	ATOM	1195	CA	THR	A	155	4.809	35.831	46.784	1.00	23.94
	ATOM	1196	C	THR	A	155	3.962	37.100	46.641	1.00	23.99
	ATOM	1197	O	THR	A	155	2.791	37.148	47.030	1.00	24.22
60	ATOM	1198	CB	THR	A	155	5.109	35.211	45.401	1.00	29.86
	ATOM	1199	OG1	THR	A	155	3.917	34.628	44.909	1.00	36.32
	ATOM	1200	CG2	THR	A	155	6.215	34.173	45.519	1.00	16.93
	ATOM	1201	N	TYR	A	156	4.539	38.129	46.059	1.00	25.56
	ATOM	1202	CA	TYR	A	156	3.766	39.336	45.874	1.00	25.78

	ATOM	1203	C	TYR	A	156	4.359	40.271	44.856	1.00	25.37
	ATOM	1204	O	TYR	A	156	5.552	40.309	44.566	1.00	29.83
	ATOM	1205	CB	TYR	A	156	3.525	40.115	47.183	1.00	27.00
5	ATOM	1206	CG	TYR	A	156	4.670	41.016	47.641	1.00	27.39
	ATOM	1207	CD1	TYR	A	156	4.801	42.315	47.146	1.00	30.16
	ATOM	1208	CD2	TYR	A	156	5.595	40.604	48.607	1.00	25.30
	ATOM	1209	CE1	TYR	A	156	5.821	43.164	47.579	1.00	33.17
	ATOM	1210	CE2	TYR	A	156	6.619	41.443	49.051	1.00	25.54
10	ATOM	1211	CZ	TYR	A	156	6.732	42.746	48.553	1.00	39.24
	ATOM	1212	OH	TYR	A	156	7.722	43.618	49.005	1.00	26.94
	ATOM	1213	N	THR	A	157	3.468	41.057	44.314	1.00	25.18
	ATOM	1214	CA	THR	A	157	3.850	42.069	43.361	1.00	26.36
	ATOM	1215	C	THR	A	157	3.121	43.339	43.762	1.00	26.72
15	ATOM	1216	O	THR	A	157	2.006	43.287	44.271	1.00	29.15
	ATOM	1217	CB	THR	A	157	3.556	41.663	41.903	1.00	38.57
	ATOM	1218	OG1	THR	A	157	2.297	41.030	41.834	1.00	38.99
	ATOM	1219	CG2	THR	A	157	4.639	40.682	41.499	1.00	35.90
	ATOM	1220	N	ALA	A	158	3.753	44.470	43.552	1.00	28.59
20	ATOM	1221	CA	ALA	A	158	3.100	45.700	43.942	1.00	33.23
	ATOM	1222	C	ALA	A	158	3.495	46.868	43.051	1.00	37.76
	ATOM	1223	O	ALA	A	158	4.598	46.946	42.482	1.00	35.09
	ATOM	1224	CB	ALA	A	158	3.487	46.038	45.382	1.00	34.39
	ATOM	1225	N	GLU	A	159	2.557	47.793	42.962	1.00	36.52
25	ATOM	1226	CA	GLU	A	159	2.779	49.011	42.213	1.00	38.54
	ATOM	1227	C	GLU	A	159	2.305	50.109	43.125	1.00	33.69
	ATOM	1228	O	GLU	A	159	1.204	50.050	43.690	1.00	29.21
	ATOM	1229	CB	GLU	A	159	2.119	49.064	40.829	1.00	42.31
	ATOM	1230	CG	GLU	A	159	1.120	47.914	40.600	1.00	75.57
30	ATOM	1231	CD	GLU	A	159	1.146	47.437	39.182	1.00	99.03
	ATOM	1232	OE1	GLU	A	159	0.467	47.937	38.296	1.00	77.74
	ATOM	1233	OE2	GLU	A	159	2.010	46.464	39.021	1.00	90.11
	ATOM	1234	N	VAL	A	160	3.181	51.064	43.345	1.00	30.74
	ATOM	1235	CA	VAL	A	160	2.726	52.053	44.289	1.00	32.22
35	ATOM	1236	C	VAL	A	160	2.872	53.454	43.745	1.00	36.18
	ATOM	1237	O	VAL	A	160	3.942	53.801	43.239	1.00	32.54
	ATOM	1238	CB	VAL	A	160	3.367	51.832	45.665	1.00	31.25
	ATOM	1239	CG1	VAL	A	160	4.614	50.978	45.535	1.00	32.36
	ATOM	1240	CG2	VAL	A	160	3.697	53.130	46.385	1.00	27.21
40	ATOM	1241	N	SER	A	161	1.776	54.222	43.839	1.00	34.59
	ATOM	1242	CA	SER	A	161	1.825	55.583	43.353	1.00	33.57
	ATOM	1243	C	SER	A	161	2.245	56.562	44.417	1.00	35.27
	ATOM	1244	O	SER	A	161	1.623	56.619	45.487	1.00	31.96
	ATOM	1245	CB	SER	A	161	0.547	56.111	42.745	1.00	33.76
45	ATOM	1246	OG	SER	A	161	0.919	57.320	42.106	1.00	38.24
	ATOM	1247	N	VAL	A	162	3.285	57.313	44.054	1.00	35.28
	ATOM	1248	CA	VAL	A	162	3.825	58.333	44.924	1.00	36.08
	ATOM	1249	C	VAL	A	162	4.182	59.588	44.159	1.00	43.76
	ATOM	1250	O	VAL	A	162	4.516	59.520	42.981	1.00	41.88
50	ATOM	1251	CB	VAL	A	162	5.095	57.910	45.667	1.00	32.84
	ATOM	1252	CG1	VAL	A	162	4.886	56.616	46.447	1.00	29.71
	ATOM	1253	CG2	VAL	A	162	6.294	57.870	44.722	1.00	30.90
	ATOM	1254	N	PRO	A	163	4.151	60.694	44.905	1.00	38.10
	ATOM	1255	CA	PRO	A	163	4.485	62.002	44.432	1.00	34.34
55	ATOM	1256	C	PRO	A	163	5.769	61.963	43.679	1.00	42.25
	ATOM	1257	O	PRO	A	163	6.785	61.519	44.193	1.00	45.19
	ATOM	1258	CB	PRO	A	163	4.577	62.867	45.689	1.00	35.12
	ATOM	1259	CG	PRO	A	163	3.694	62.203	46.730	1.00	38.80
	ATOM	1260	CD	PRO	A	163	3.454	60.787	46.223	1.00	35.96
60	ATOM	1261	N	LYS	A	164	5.662	62.415	42.444	1.00	45.01
	ATOM	1262	CA	LYS	A	164	6.755	62.457	41.497	1.00	46.89
	ATOM	1263	C	LYS	A	164	8.111	62.681	42.151	1.00	46.24
	ATOM	1264	O	LYS	A	164	9.119	62.088	41.784	1.00	46.96
	ATOM	1265	CB	LYS	A	164	6.556	63.551	40.440	1.00	55.91
	ATOM	1266	CG	LYS	A	164	5.133	63.813	39.942	1.00	97.37

5	ATOM	1267	CD	LYS	A	164	5.012	64.953	38.913	1.00100.00
	ATOM	1268	CE	LYS	A	164	5.120	64.558	37.434	1.00100.00
	ATOM	1269	NZ	LYS	A	164	3.833	64.450	36.718	1.00100.00
	ATOM	1270	N	GLU	A	165	8.164	63.595	43.102	1.00 42.61
	ATOM	1271	CA	GLU	A	165	9.422	63.941	43.749	1.00 45.37
10	ATOM	1272	C	GLU	A	165	10.005	62.929	44.747	1.00 47.34
	ATOM	1273	O	GLU	A	165	11.156	63.001	45.179	1.00 43.70
	ATOM	1274	CB	GLU	A	165	9.349	65.366	44.343	1.00 47.53
	ATOM	1275	CG	GLU	A	165	8.275	65.541	45.446	1.00 66.49
	ATOM	1276	CD	GLU	A	165	6.837	65.640	44.991	1.00 96.79
15	ATOM	1277	OE1	GLU	A	165	6.436	65.365	43.864	1.00 99.56
	ATOM	1278	OE2	GLU	A	165	6.056	66.058	45.964	1.00 77.24
	ATOM	1279	N	LEU	A	166	9.197	61.958	45.118	1.00 44.94
	ATOM	1280	CA	LEU	A	166	9.647	60.996	46.084	1.00 40.65
	ATOM	1281	C	LEU	A	166	9.908	59.636	45.497	1.00 50.07
20	ATOM	1282	O	LEU	A	166	9.354	59.307	44.443	1.00 52.03
	ATOM	1283	CB	LEU	A	166	8.566	60.917	47.170	1.00 35.62
	ATOM	1284	CG	LEU	A	166	8.264	62.286	47.766	1.00 31.47
	ATOM	1285	CD1	LEU	A	166	7.234	62.081	48.848	1.00 29.41
	ATOM	1286	CD2	LEU	A	166	9.521	62.927	48.364	1.00 25.32
25	ATOM	1287	N	VAL	A	167	10.744	58.884	46.229	1.00 43.25
	ATOM	1288	CA	VAL	A	167	11.112	57.508	45.933	1.00 39.13
	ATOM	1289	C	VAL	A	167	10.432	56.490	46.855	1.00 44.52
	ATOM	1290	O	VAL	A	167	10.327	56.679	48.074	1.00 39.15
	ATOM	1291	CB	VAL	A	167	12.592	57.293	46.083	1.00 37.94
30	ATOM	1292	CG1	VAL	A	167	12.920	55.922	45.515	1.00 35.52
	ATOM	1293	CG2	VAL	A	167	13.303	58.401	45.345	1.00 37.13
	ATOM	1294	N	ALA	A	168	9.998	55.394	46.233	1.00 39.32
	ATOM	1295	CA	ALA	A	168	9.363	54.288	46.918	1.00 34.98
	ATOM	1296	C	ALA	A	168	10.209	53.034	46.762	1.00 40.61
35	ATOM	1297	O	ALA	A	168	10.720	52.782	45.671	1.00 40.08
	ATOM	1298	CB	ALA	A	168	7.957	54.003	46.427	1.00 33.16
	ATOM	1299	N	LEU	A	169	10.380	52.295	47.876	1.00 32.03
	ATOM	1300	CA	LEU	A	169	11.104	51.038	47.926	1.00 27.11
	ATOM	1301	C	LEU	A	169	10.289	50.039	48.717	1.00 32.61
40	ATOM	1302	O	LEU	A	169	9.460	50.400	49.544	1.00 33.15
	ATOM	1303	CB	LEU	A	169	12.543	51.071	48.449	1.00 25.35
	ATOM	1304	CG	LEU	A	169	13.362	52.250	47.964	1.00 29.91
	ATOM	1305	CD1	LEU	A	169	14.686	52.206	48.708	1.00 29.99
	ATOM	1306	CD2	LEU	A	169	13.676	52.118	46.482	1.00 29.66
45	ATOM	1307	N	MET	A	170	10.495	48.764	48.417	1.00 31.01
	ATOM	1308	CA	MET	A	170	9.811	47.680	49.081	1.00 25.79
	ATOM	1309	C	MET	A	170	10.757	46.537	49.309	1.00 24.72
	ATOM	1310	O	MET	A	170	11.896	46.474	48.835	1.00 23.26
	ATOM	1311	CB	MET	A	170	8.569	47.164	48.337	1.00 28.25
50	ATOM	1312	CG	MET	A	170	7.556	48.274	48.171	1.00 31.25
	ATOM	1313	SD	MET	A	170	5.901	47.652	47.812	1.00 35.46
	ATOM	1314	CE	MET	A	170	5.341	46.854	49.347	1.00 30.63
	ATOM	1315	N	SER	A	171	10.265	45.599	50.078	1.00 25.49
	ATOM	1316	CA	SER	A	171	11.080	44.433	50.331	1.00 23.48
55	ATOM	1317	C	SER	A	171	10.947	43.519	49.087	1.00 26.82
	ATOM	1318	O	SER	A	171	10.414	42.426	49.110	1.00 22.63
	ATOM	1319	CB	SER	A	171	10.623	43.790	51.641	1.00 18.95
	ATOM	1320	OG	SER	A	171	9.230	43.521	51.646	1.00 24.18
	ATOM	1321	N	ALA	A	172	11.378	43.996	47.944	1.00 28.35
60	ATOM	1322	CA	ALA	A	172	11.234	43.201	46.752	1.00 28.47
	ATOM	1323	C	ALA	A	172	12.201	43.688	45.722	1.00 31.99
	ATOM	1324	O	ALA	A	172	12.997	44.593	45.971	1.00 30.63
	ATOM	1325	CB	ALA	A	172	9.829	43.376	46.201	1.00 29.09
	ATOM	1326	N	ILE	A	173	12.116	43.086	44.546	1.00 34.66
	ATOM	1327	CA	ILE	A	173	12.998	43.523	43.461	1.00 34.83
	ATOM	1328	C	ILE	A	173	12.335	44.698	42.748	1.00 30.47
	ATOM	1329	O	ILE	A	173	11.131	44.679	42.428	1.00 26.31
	ATOM	1330	CB	ILE	A	173	13.395	42.387	42.489	1.00 39.20



	ATOM	1395	N	GLU	A	182	-3.175	59.556	35.793	1.00	88.82
	ATOM	1396	CA	GLU	A	182	-4.443	59.519	36.506	1.00	89.31
	ATOM	1397	C	GLU	A	182	-4.808	60.809	37.218	1.00	98.64
	ATOM	1398	O	GLU	A	182	-5.181	60.787	38.385	1.00	99.08
5	ATOM	1399	CB	GLU	A	182	-4.359	58.380	37.528	1.00	90.42
	ATOM	1400	CG	GLU	A	182	-5.510	57.373	37.391	1.00	98.92
	ATOM	1401	CD	GLU	A	182	-6.826	58.010	37.750	1.00	100.00
	ATOM	1402	OE1	GLU	A	182	-7.465	58.719	36.986	1.00	100.00
	ATOM	1403	OE2	GLU	A	182	-7.169	57.806	39.003	1.00	100.00
10	ATOM	1404	N	ASP	A	183	-4.704	61.939	36.487	1.00	100.00
	ATOM	1405	CA	ASP	A	183	-4.952	63.289	37.021	1.00	100.00
	ATOM	1406	C	ASP	A	183	-4.112	63.534	38.264	1.00	100.00
	ATOM	1407	O	ASP	A	183	-4.557	64.229	39.192	1.00	100.00
	ATOM	1408	CB	ASP	A	183	-6.460	63.709	37.195	1.00	100.00
15	ATOM	1409	CG	ASP	A	183	-7.509	62.613	37.228	1.00	100.00
	ATOM	1410	OD1	ASP	A	183	-8.091	62.209	36.225	1.00	100.00
	ATOM	1411	OD2	ASP	A	183	-7.745	62.155	38.451	1.00	100.00
	ATOM	1412	N	PRO	A	184	-2.878	62.960	38.272	1.00	97.37
	ATOM	1413	CA	PRO	A	184	-2.075	63.104	39.462	1.00	95.12
20	ATOM	1414	C	PRO	A	184	-0.708	63.687	39.190	1.00	98.12
	ATOM	1415	O	PRO	A	184	-0.248	63.872	38.049	1.00	96.48
	ATOM	1416	CB	PRO	A	184	-1.735	61.635	39.703	1.00	96.33
	ATOM	1417	CG	PRO	A	184	-1.335	61.138	38.314	1.00	100.00
	ATOM	1418	CD	PRO	A	184	-2.110	62.028	37.363	1.00	96.08
25	ATOM	1419	N	SER	A	185	-0.023	63.913	40.311	1.00	92.79
	ATOM	1420	CA	SER	A	185	1.347	64.393	40.313	1.00	88.74
	ATOM	1421	C	SER	A	185	2.206	63.348	41.012	1.00	81.94
	ATOM	1422	O	SER	A	185	3.066	63.667	41.846	1.00	84.44
	ATOM	1423	CB	SER	A	185	1.541	65.771	40.914	1.00	93.34
30	ATOM	1424	OG	SER	A	185	2.614	66.419	40.251	1.00	100.00
	ATOM	1425	N	ARG	A	186	1.930	62.095	40.627	1.00	64.19
	ATOM	1426	CA	ARG	A	186	2.596	60.947	41.162	1.00	59.49
	ATOM	1427	C	ARG	A	186	3.282	60.116	40.116	1.00	59.45
	ATOM	1428	O	ARG	A	186	3.053	60.227	38.916	1.00	59.05
35	ATOM	1429	CB	ARG	A	186	1.659	60.042	41.958	1.00	55.86
	ATOM	1430	CG	ARG	A	186	0.324	60.675	42.291	1.00	27.25
	ATOM	1431	CD	ARG	A	186	-0.548	59.827	43.204	1.00	57.78
	ATOM	1432	NE	ARG	A	186	0.194	59.220	44.306	1.00	80.89
	ATOM	1433	CZ	ARG	A	186	0.569	59.842	45.420	1.00	97.56
40	ATOM	1434	NH1	ARG	A	186	0.297	61.124	45.643	1.00	83.79
	ATOM	1435	NH2	ARG	A	186	1.235	59.142	46.335	1.00	85.34
	ATOM	1436	N	LYS	A	187	4.128	59.268	40.675	1.00	53.71
	ATOM	1437	CA	LYS	A	187	4.904	58.295	39.970	1.00	50.62
	ATOM	1438	C	LYS	A	187	4.359	56.988	40.450	1.00	53.26
45	ATOM	1439	O	LYS	A	187	3.776	56.881	41.543	1.00	51.61
	ATOM	1440	CB	LYS	A	187	6.351	58.266	40.393	1.00	52.26
	ATOM	1441	CG	LYS	A	187	7.282	59.118	39.571	1.00	54.27
	ATOM	1442	CD	LYS	A	187	8.703	58.584	39.606	1.00	55.39
	ATOM	1443	CE	LYS	A	187	9.728	59.611	40.051	1.00	31.63
50	ATOM	1444	NZ	LYS	A	187	11.058	59.374	39.481	1.00	46.19
	ATOM	1445	N	ILE	A	188	4.598	56.025	39.584	1.00	49.44
	ATOM	1446	CA	ILE	A	188	4.200	54.683	39.845	1.00	48.00
	ATOM	1447	C	ILE	A	188	5.361	53.694	39.935	1.00	53.77
	ATOM	1448	O	ILE	A	188	6.057	53.436	38.951	1.00	53.51
55	ATOM	1449	CB	ILE	A	188	2.753	54.307	39.572	1.00	49.99
	ATOM	1450	CG1	ILE	A	188	2.558	52.804	39.554	1.00	51.55
	ATOM	1451	CG2	ILE	A	188	2.229	54.973	38.315	1.00	51.74
	ATOM	1452	CD1	ILE	A	188	1.336	52.415	40.385	1.00	80.62
	ATOM	1453	N	TYR	A	189	5.640	53.226	41.166	1.00	45.90
60	ATOM	1454	CA	TYR	A	189	6.742	52.322	41.402	1.00	40.92
	ATOM	1455	C	TYR	A	189	6.330	50.851	41.496	1.00	40.81
	ATOM	1456	O	TYR	A	189	5.362	50.493	42.188	1.00	39.23
	ATOM	1457	CB	TYR	A	189	7.528	52.773	42.638	1.00	40.24
	ATOM	1458	CG	TYR	A	189	8.427	53.968	42.455	1.00	31.23

	ATOM	1459	CD1	TYR	A	189	9.711	53.803	41.939	1.00	31.58
	ATOM	1460	CD2	TYR	A	189	8.046	55.239	42.886	1.00	30.59
	ATOM	1461	CE1	TYR	A	189	10.593	54.879	41.813	1.00	34.77
5	ATOM	1462	CE2	TYR	A	189	8.913	56.328	42.764	1.00	31.23
	ATOM	1463	CZ	TYR	A	189	10.188	56.151	42.224	1.00	39.57
	ATOM	1464	OH	TYR	A	189	11.058	57.218	42.096	1.00	34.19
	ATOM	1465	N	LYS	A	190	7.123	50.034	40.775	1.00	39.37
	ATOM	1466	CA	LYS	A	190	6.971	48.589	40.627	1.00	39.51
10	ATOM	1467	C	LYS	A	190	8.024	47.700	41.305	1.00	35.21
	ATOM	1468	O	LYS	A	190	9.235	47.928	41.275	1.00	32.65
	ATOM	1469	CB	LYS	A	190	6.775	48.214	39.161	1.00	43.13
	ATOM	1470	CG	LYS	A	190	5.359	48.468	38.642	1.00	68.06
	ATOM	1471	CD	LYS	A	190	5.308	49.170	37.290	1.00	80.52
	ATOM	1472	CE	LYS	A	190	5.559	48.262	36.089	1.00	100.00
15	ATOM	1473	NZ	LYS	A	190	6.556	48.792	35.135	1.00	100.00
	ATOM	1474	N	PHE	A	191	7.502	46.641	41.907	1.00	32.67
	ATOM	1475	CA	PHE	A	191	8.296	45.679	42.651	1.00	31.95
	ATOM	1476	C	PHE	A	191	7.784	44.249	42.523	1.00	33.46
20	ATOM	1477	O	PHE	A	191	6.571	43.970	42.462	1.00	32.26
	ATOM	1478	CB	PHE	A	191	8.182	46.052	44.157	1.00	31.15
	ATOM	1479	CG	PHE	A	191	8.495	47.505	44.457	1.00	25.52
	ATOM	1480	CD1	PHE	A	191	9.813	47.930	44.618	1.00	25.46
	ATOM	1481	CD2	PHE	A	191	7.477	48.447	44.582	1.00	28.24
25	ATOM	1482	CE1	PHE	A	191	10.131	49.261	44.884	1.00	27.83
	ATOM	1483	CE2	PHE	A	191	7.769	49.786	44.841	1.00	30.83
	ATOM	1484	CZ	PHE	A	191	9.095	50.188	44.999	1.00	29.60
	ATOM	1485	N	ILE	A	192	8.732	43.324	42.567	1.00	33.50
	ATOM	1486	CA	ILE	A	192	9.358	41.918	42.502	1.00	35.54
30	ATOM	1487	C	ILE	A	192	9.089	41.083	43.523	1.00	27.79
	ATOM	1488	O	ILE	A	192	10.299	41.147	43.644	1.00	26.68
	ATOM	1489	CB	ILE	A	192	8.521	41.221	41.133	1.00	40.49
	ATOM	1490	CG1	ILE	A	192	9.982	41.182	40.709	1.00	43.06
	ATOM	1491	CG2	ILE	A	192	7.753	41.957	40.052	1.00	44.56
35	ATOM	1492	CD1	ILE	A	192	10.729	39.903	41.096	1.00	83.58
	ATOM	1493	N	GLN	A	193	8.322	40.266	44.204	1.00	29.76
	ATOM	1494	CA	GLN	A	193	8.903	39.386	45.177	1.00	30.86
	ATOM	1495	C	GLN	A	193	8.505	37.983	44.831	1.00	28.66
	ATOM	1496	O	GLN	A	193	7.406	37.529	45.181	1.00	27.73
40	ATOM	1497	CB	GLN	A	193	8.625	39.729	46.669	1.00	32.91
	ATOM	1498	CG	GLN	A	193	9.339	38.787	47.682	1.00	24.21
	ATOM	1499	CD	GLN	A	193	10.864	38.777	47.631	1.00	20.52
	ATOM	1500	OE1	GLN	A	193	11.448	37.867	47.031	1.00	28.37
	ATOM	1501	NE2	GLN	A	193	11.535	39.752	48.272	1.00	21.68
45	ATOM	1502	N	LYS	A	194	9.477	37.342	44.163	1.00	30.49
	ATOM	1503	CA	LYS	A	194	9.401	35.950	43.684	1.00	34.51
	ATOM	1504	C	LYS	A	194	9.563	34.882	44.787	1.00	40.98
	ATOM	1505	O	LYS	A	194	9.071	33.753	44.652	1.00	39.86
	ATOM	1506	CB	LYS	A	194	10.319	35.663	42.485	1.00	36.96
50	ATOM	1507	CG	LYS	A	194	9.652	35.946	41.148	1.00	60.69
	ATOM	1508	CD	LYS	A	194	10.655	36.201	40.037	1.00	71.49
	ATOM	1509	CE	LYS	A	194	10.024	36.595	38.711	1.00	70.55
	ATOM	1510	NZ	LYS	A	194	11.032	37.075	37.745	1.00	96.02
	ATOM	1511	N	VAL	A	195	10.268	35.201	45.882	1.00	28.85
55	ATOM	1512	CA	VAL	A	195	10.383	34.203	46.929	1.00	24.96
	ATOM	1513	C	VAL	A	195	9.195	34.303	47.895	1.00	28.79
	ATOM	1514	O	VAL	A	195	8.820	35.398	48.331	1.00	30.73
	ATOM	1515	CB	VAL	A	195	11.716	34.313	47.649	1.00	28.17
	ATOM	1516	CG1	VAL	A	195	11.907	33.002	48.380	1.00	31.42
60	ATOM	1517	CG2	VAL	A	195	12.875	34.513	46.672	1.00	26.41
	ATOM	1518	N	PRO	A	196	8.540	33.179	48.222	1.00	23.07
	ATOM	1519	CA	PRO	A	196	7.423	33.248	49.134	1.00	20.29
	ATOM	1520	C	PRO	A	196	7.931	33.653	50.519	1.00	26.98
	ATOM	1521	O	PRO	A	196	8.932	33.121	51.013	1.00	23.36
	ATOM	1522	CB	PRO	A	196	6.769	31.869	49.189	1.00	19.98

	ATOM	1523	CG	PRO	A	196	7.665	30.923	48.414	1.00	24.10
	ATOM	1524	CD	PRO	A	196	8.673	31.798	47.691	1.00	23.37
	ATOM	1525	N	ILE	A	197	7.254	34.639	51.105	1.00	25.17
5	ATOM	1526	CA	ILE	A	197	7.642	35.141	52.407	1.00	22.96
	ATOM	1527	C	ILE	A	197	6.431	35.273	53.312	1.00	25.79
	ATOM	1528	O	ILE	A	197	5.281	35.395	52.833	1.00	22.84
	ATOM	1529	CB	ILE	A	197	8.228	36.535	52.230	1.00	23.36
	ATOM	1530	CG1	ILE	A	197	7.164	37.355	51.526	1.00	25.01
	ATOM	1531	CG2	ILE	A	197	9.509	36.554	51.399	1.00	21.56
10	ATOM	1532	CD1	ILE	A	197	7.429	38.859	51.634	1.00	22.37
	ATOM	1533	N	PRO	A	198	6.720	35.261	54.633	1.00	20.61
	ATOM	1534	CA	PRO	A	198	5.687	35.453	55.660	1.00	15.95
	ATOM	1535	C	PRO	A	198	5.298	36.916	55.491	1.00	17.92
	ATOM	1536	O	PRO	A	198	6.185	37.687	55.086	1.00	17.98
15	ATOM	1537	CB	PRO	A	198	6.399	35.297	57.011	1.00	15.44
	ATOM	1538	CG	PRO	A	198	7.881	35.462	56.704	1.00	18.48
	ATOM	1539	CD	PRO	A	198	8.088	35.164	55.223	1.00	15.86
	ATOM	1540	N	CYS	A	199	4.030	37.325	55.748	1.00	18.80
20	ATOM	1541	CA	CYS	A	199	3.646	38.750	55.529	1.00	19.91
	ATOM	1542	C	CYS	A	199	4.363	39.820	56.400	1.00	22.70
	ATOM	1543	O	CYS	A	199	4.392	41.030	56.091	1.00	19.22
	ATOM	1544	CB	CYS	A	199	2.118	38.964	55.554	1.00	17.27
	ATOM	1545	SG	CYS	A	199	1.359	38.495	57.126	1.00	22.02
	ATOM	1546	N	TYR	A	200	4.963	39.375	57.512	1.00	20.55
25	ATOM	1547	CA	TYR	A	200	5.652	40.318	58.356	1.00	19.65
	ATOM	1548	C	TYR	A	200	6.894	40.879	57.724	1.00	24.32
	ATOM	1549	O	TYR	A	200	7.493	41.812	58.252	1.00	26.71
	ATOM	1550	CB	TYR	A	200	5.978	39.763	59.731	1.00	17.18
	ATOM	1551	CG	TYR	A	200	7.086	38.751	59.710	1.00	17.72
30	ATOM	1552	CD1	TYR	A	200	8.409	39.169	59.846	1.00	16.87
	ATOM	1553	CD2	TYR	A	200	6.802	37.385	59.642	1.00	18.65
	ATOM	1554	CE1	TYR	A	200	9.432	38.221	59.864	1.00	14.67
	ATOM	1555	CE2	TYR	A	200	7.822	36.434	59.699	1.00	18.76
	ATOM	1556	CZ	TYR	A	200	9.146	36.855	59.802	1.00	20.42
35	ATOM	1557	OH	TYR	A	200	10.169	35.921	59.858	1.00	17.42
	ATOM	1558	N	LEU	A	201	7.280	40.312	56.590	1.00	16.84
	ATOM	1559	CA	LEU	A	201	8.436	40.765	55.864	1.00	14.82
	ATOM	1560	C	LEU	A	201	8.078	41.787	54.785	1.00	24.60
	ATOM	1561	O	LEU	A	201	8.956	42.269	54.044	1.00	22.81
40	ATOM	1562	CB	LEU	A	201	9.138	39.532	55.256	1.00	17.56
	ATOM	1563	CG	LEU	A	201	9.910	38.670	56.257	1.00	16.40
	ATOM	1564	CD1	LEU	A	201	10.674	37.594	55.489	1.00	15.76
	ATOM	1565	CD2	LEU	A	201	10.900	39.523	57.040	1.00	16.02
	ATOM	1566	N	ILE	A	202	6.761	42.084	54.657	1.00	24.26
45	ATOM	1567	CA	ILE	A	202	6.293	43.088	53.698	1.00	20.28
	ATOM	1568	C	ILE	A	202	6.703	44.481	54.226	1.00	25.46
	ATOM	1569	O	ILE	A	202	6.447	44.850	55.393	1.00	26.48
	ATOM	1570	CB	ILE	A	202	4.784	43.015	53.489	1.00	21.23
	ATOM	1571	CG1	ILE	A	202	4.433	41.851	52.593	1.00	17.03
50	ATOM	1572	CG2	ILE	A	202	4.312	44.312	52.826	1.00	23.71
	ATOM	1573	CD1	ILE	A	202	2.917	41.692	52.437	1.00	22.39
	ATOM	1574	N	ALA	A	203	7.375	45.252	53.384	1.00	17.97
	ATOM	1575	CA	ALA	A	203	7.860	46.568	53.782	1.00	22.84
	ATOM	1576	C	ALA	A	203	7.849	47.593	52.658	1.00	30.22
55	ATOM	1577	O	ALA	A	203	8.125	47.284	51.494	1.00	27.07
	ATOM	1578	CB	ALA	A	203	9.284	46.554	54.360	1.00	20.04
	ATOM	1579	N	LEU	A	204	7.589	48.823	53.117	1.00	25.33
	ATOM	1580	CA	LEU	A	204	7.503	50.022	52.300	1.00	23.92
	ATOM	1581	C	LEU	A	204	8.105	51.242	53.003	1.00	27.30
60	ATOM	1582	O	LEU	A	204	8.004	51.419	54.219	1.00	24.19
	ATOM	1583	CB	LEU	A	204	6.008	50.269	51.933	1.00	22.42
	ATOM	1584	CG	LEU	A	204	5.702	51.492	51.036	1.00	24.14
	ATOM	1585	CD1	LEU	A	204	6.204	51.374	49.593	1.00	17.81
	ATOM	1586	CD2	LEU	A	204	4.210	51.792	51.073	1.00	26.36



	ATOM	1587	N	VAL	A	205	8.726	52.078	52.178	1.00	26.54
	ATOM	1588	CA	VAL	A	205	9.333	53.346	52.518	1.00	25.64
	ATOM	1589	C	VAL	A	205	9.152	54.299	51.363	1.00	30.84
5	ATOM	1590	O	VAL	A	205	9.382	53.955	50.204	1.00	29.34
	ATOM	1591	CB	VAL	A	205	10.827	53.298	52.785	1.00	27.61
	ATOM	1592	CG1	VAL	A	205	11.551	52.637	51.625	1.00	25.87
	ATOM	1593	CG2	VAL	A	205	11.359	54.717	53.021	1.00	27.64
	ATOM	1594	N	VAL	A	206	8.763	55.503	51.704	1.00	28.24
10	ATOM	1595	CA	VAL	A	206	8.600	56.544	50.709	1.00	27.85
	ATOM	1596	C	VAL	A	206	9.246	57.813	51.206	1.00	30.43
	ATOM	1597	O	VAL	A	206	8.961	58.289	52.320	1.00	31.87
	ATOM	1598	CB	VAL	A	206	7.145	56.882	50.379	1.00	30.77
	ATOM	1599	CG1	VAL	A	206	7.113	57.870	49.200	1.00	33.19
	ATOM	1600	CG2	VAL	A	206	6.336	55.620	50.078	1.00	26.71
15	ATOM	1601	N	GLY	A	207	10.098	58.357	50.363	1.00	25.40
	ATOM	1602	CA	GLY	A	207	10.706	59.596	50.760	1.00	28.31
	ATOM	1603	C	GLY	A	207	11.654	60.097	49.716	1.00	35.37
	ATOM	1604	O	GLY	A	207	11.688	59.549	48.615	1.00	34.13
20	ATOM	1605	N	ALA	A	208	12.414	61.121	50.123	1.00	33.99
	ATOM	1606	CA	ALA	A	208	13.414	61.776	49.290	1.00	35.45
	ATOM	1607	C	ALA	A	208	14.746	61.041	49.360	1.00	38.58
	ATOM	1608	O	ALA	A	208	15.799	61.544	49.784	1.00	39.24
	ATOM	1609	CB	ALA	A	208	13.502	63.268	49.619	1.00	36.08
25	ATOM	1610	N	LEU	A	209	14.676	59.796	48.916	1.00	34.99
	ATOM	1611	CA	LEU	A	209	15.821	58.918	48.962	1.00	32.15
	ATOM	1612	C	LEU	A	209	16.730	59.052	47.800	1.00	43.00
	ATOM	1613	O	LEU	A	209	16.298	59.315	46.679	1.00	44.56
	ATOM	1614	CB	LEU	A	209	15.384	57.449	49.000	1.00	30.82
30	ATOM	1615	CG	LEU	A	209	14.293	57.238	50.030	1.00	34.48
	ATOM	1616	CD1	LEU	A	209	13.712	55.840	49.875	1.00	31.95
	ATOM	1617	CD2	LEU	A	209	14.955	57.428	51.386	1.00	31.78
	ATOM	1618	N	GLU	A	210	17.979	58.795	48.156	1.00	39.96
	ATOM	1619	CA	GLU	A	210	19.130	58.767	47.294	1.00	37.51
35	ATOM	1620	C	GLU	A	210	19.802	57.468	47.652	1.00	45.24
	ATOM	1621	O	GLU	A	210	19.520	56.916	48.716	1.00	45.87
	ATOM	1622	CB	GLU	A	210	20.088	59.940	47.570	1.00	39.44
	ATOM	1623	CG	GLU	A	210	19.601	61.256	46.936	1.00	43.88
	ATOM	1624	CD	GLU	A	210	20.679	62.289	46.960	1.00	83.62
40	ATOM	1625	OE1	GLU	A	210	21.851	62.020	47.179	1.00	69.67
	ATOM	1626	OE2	GLU	A	210	20.217	63.498	46.755	1.00	100.00
	ATOM	1627	N	SER	A	211	20.661	56.973	46.774	1.00	39.83
	ATOM	1628	CA	SER	A	211	21.323	55.719	47.046	1.00	39.26
	ATOM	1629	C	SER	A	211	22.763	55.796	46.628	1.00	40.32
45	ATOM	1630	O	SER	A	211	23.122	56.657	45.861	1.00	47.20
	ATOM	1631	CB	SER	A	211	20.662	54.587	46.273	1.00	44.16
	ATOM	1632	OG	SER	A	211	20.992	54.685	44.896	1.00	48.01
	ATOM	1633	N	ARG	A	212	23.589	54.915	47.123	1.00	30.46
50	ATOM	1634	CA	ARG	A	212	24.981	54.860	46.737	1.00	30.14
	ATOM	1635	C	ARG	A	212	25.200	53.371	46.539	1.00	38.14
	ATOM	1636	O	ARG	A	212	24.617	52.557	47.252	1.00	38.33
	ATOM	1637	CB	ARG	A	212	25.928	55.449	47.785	1.00	36.60
	ATOM	1638	CG	ARG	A	212	26.973	56.473	47.307	1.00	66.52
	ATOM	1639	CD	ARG	A	212	26.437	57.592	46.403	1.00	92.22
55	ATOM	1640	NE	ARG	A	212	26.336	58.944	46.974	1.00	88.06
	ATOM	1641	CZ	ARG	A	212	25.429	59.863	46.586	1.00	100.00
	ATOM	1642	NH1	ARG	A	212	24.525	59.616	45.636	1.00	63.09
	ATOM	1643	NH2	ARG	A	212	25.405	61.069	47.169	1.00	100.00
60	ATOM	1644	N	GLN	A	213	25.985	52.957	45.570	1.00	34.56
	ATOM	1645	CA	GLN	A	213	26.155	51.533	45.435	1.00	34.71
	ATOM	1646	C	GLN	A	213	27.453	51.142	46.101	1.00	40.21
	ATOM	1647	O	GLN	A	213	28.493	51.737	45.826	1.00	41.35
	ATOM	1648	CB	GLN	A	213	26.081	51.014	44.000	1.00	36.31
	ATOM	1649	CG	GLN	A	213	26.626	49.582	43.946	1.00	49.64
	ATOM	1650	CD	GLN	A	213	26.775	49.077	42.531	1.00	80.06

	ATOM	1651	OE1	GLN	A	213	26.908	47.861	42.312	1.00	77.10
	ATOM	1652	NE2	GLN	A	213	26.753	50.012	41.577	1.00	75.51
	ATOM	1653	N	ILE	A	214	27.370	50.166	47.007	1.00	35.56
5	ATOM	1654	CA	ILE	A	214	28.531	49.737	47.760	1.00	32.74
	ATOM	1655	C	ILE	A	214	28.947	48.311	47.535	1.00	28.86
	ATOM	1656	O	ILE	A	214	29.917	47.897	48.149	1.00	30.02
	ATOM	1657	CB	ILE	A	214	28.320	49.957	49.262	1.00	39.00
	ATOM	1658	CG1	ILE	A	214	27.032	49.265	49.733	1.00	40.79
10	ATOM	1659	CG2	ILE	A	214	28.198	51.447	49.566	1.00	39.90
	ATOM	1660	CD1	ILE	A	214	26.810	49.364	51.247	1.00	39.31
	ATOM	1661	N	GLY	A	215	28.231	47.569	46.691	1.00	29.42
	ATOM	1662	CA	GLY	A	215	28.518	46.166	46.367	1.00	26.41
	ATOM	1663	C	GLY	A	215	27.778	45.743	45.106	1.00	30.00
	ATOM	1664	O	GLY	A	215	26.874	46.447	44.669	1.00	35.16
15	ATOM	1665	N	PRO	A	216	28.131	44.608	44.497	1.00	33.24
	ATOM	1666	CA	PRO	A	216	27.459	44.197	43.262	1.00	33.84
	ATOM	1667	C	PRO	A	216	25.979	43.984	43.441	1.00	39.13
	ATOM	1668	O	PRO	A	216	25.241	44.145	42.467	1.00	40.02
20	ATOM	1669	CB	PRO	A	216	28.067	42.867	42.793	1.00	34.78
	ATOM	1670	CG	PRO	A	216	29.020	42.415	43.897	1.00	38.44
	ATOM	1671	CD	PRO	A	216	29.116	43.556	44.912	1.00	35.07
	ATOM	1672	N	ARG	A	217	25.578	43.609	44.662	1.00	23.56
	ATOM	1673	CA	ARG	A	217	24.177	43.370	44.909	1.00	21.48
	ATOM	1674	C	ARG	A	217	23.679	44.288	46.015	1.00	30.90
25	ATOM	1675	O	ARG	A	217	22.706	44.002	46.713	1.00	27.14
	ATOM	1676	CB	ARG	A	217	23.926	41.920	45.247	1.00	22.22
	ATOM	1677	CG	ARG	A	217	25.122	41.312	45.977	1.00	30.92
	ATOM	1678	CD	ARG	A	217	24.882	39.839	46.242	1.00	25.36
30	ATOM	1679	NE	ARG	A	217	26.009	39.174	46.874	1.00	30.74
	ATOM	1680	CZ	ARG	A	217	26.020	37.875	47.141	1.00	32.19
	ATOM	1681	NH1	ARG	A	217	24.991	37.088	46.838	1.00	29.57
	ATOM	1682	NH2	ARG	A	217	27.090	37.341	47.732	1.00	42.93
	ATOM	1683	N	THR	A	218	24.354	45.426	46.134	1.00	27.52
35	ATOM	1684	CA	THR	A	218	23.979	46.331	47.172	1.00	25.01
	ATOM	1685	C	THR	A	218	24.154	47.813	46.936	1.00	29.25
	ATOM	1686	O	THR	A	218	25.256	48.269	46.674	1.00	32.56
	ATOM	1687	CB	THR	A	218	24.877	46.003	48.388	1.00	30.92
	ATOM	1688	OG1	THR	A	218	24.591	44.711	48.891	1.00	28.41
40	ATOM	1689	CG2	THR	A	218	24.710	47.060	49.474	1.00	27.73
	ATOM	1690	N	LEU	A	219	23.056	48.543	47.133	1.00	25.49
	ATOM	1691	CA	LEU	A	219	22.997	49.991	47.132	1.00	27.09
	ATOM	1692	C	LEU	A	219	22.572	50.417	48.532	1.00	35.31
	ATOM	1693	O	LEU	A	219	21.748	49.739	49.162	1.00	32.55
45	ATOM	1694	CB	LEU	A	219	21.822	50.526	46.319	1.00	29.51
	ATOM	1695	CG	LEU	A	219	22.159	50.812	44.869	1.00	31.54
	ATOM	1696	CD1	LEU	A	219	23.162	49.773	44.395	1.00	31.76
	ATOM	1697	CD2	LEU	A	219	20.836	50.658	44.148	1.00	32.31
	ATOM	1698	N	VAL	A	220	23.086	51.549	49.001	1.00	31.15
50	ATOM	1699	CA	VAL	A	220	22.715	52.101	50.289	1.00	31.32
	ATOM	1700	C	VAL	A	220	21.720	53.197	50.002	1.00	31.45
	ATOM	1701	O	VAL	A	220	22.004	54.072	49.190	1.00	31.85
	ATOM	1702	CB	VAL	A	220	23.878	52.729	51.089	1.00	39.68
	ATOM	1703	CG1	VAL	A	220	23.538	52.833	52.574	1.00	37.81
55	ATOM	1704	CG2	VAL	A	220	25.193	51.970	50.965	1.00	42.41
	ATOM	1705	N	TRP	A	221	20.579	53.168	50.665	1.00	28.89
	ATOM	1706	CA	TRP	A	221	19.574	54.197	50.471	1.00	30.76
	ATOM	1707	C	TRP	A	221	19.317	55.010	51.729	1.00	38.31
	ATOM	1708	O	TRP	A	221	19.205	54.446	52.812	1.00	35.62
60	ATOM	1709	CB	TRP	A	221	18.240	53.555	50.116	1.00	30.66
	ATOM	1710	CG	TRP	A	221	18.321	52.711	48.896	1.00	34.85
	ATOM	1711	CD1	TRP	A	221	18.752	51.434	48.798	1.00	37.00
	ATOM	1712	CD2	TRP	A	221	17.952	53.129	47.584	1.00	36.50
	ATOM	1713	NE1	TRP	A	221	18.648	51.014	47.501	1.00	35.82
	ATOM	1714	CE2	TRP	A	221	18.154	52.033	46.737	1.00	39.42

	ATOM	1715	CE3	TRP	A	221	17.429	54.325	47.067	1.00	36.65
	ATOM	1716	CZ2	TRP	A	221	17.864	52.123	45.374	1.00	38.93
	ATOM	1717	CZ3	TRP	A	221	17.124	54.398	45.732	1.00	36.06
	ATOM	1718	CH2	TRP	A	221	17.353	53.308	44.897	1.00	36.29
5	ATOM	1719	N	SER	A	222	19.172	56.319	51.557	1.00	31.91
	ATOM	1720	CA	SER	A	222	18.877	57.235	52.639	1.00	32.45
	ATOM	1721	C	SER	A	222	18.692	58.639	52.086	1.00	40.59
	ATOM	1722	O	SER	A	222	18.918	58.901	50.894	1.00	40.28
10	ATOM	1723	CB	SER	A	222	19.941	57.242	53.735	1.00	31.75
	ATOM	1724	OG	SER	A	222	21.077	57.977	53.297	1.00	35.91
	ATOM	1725	N	GLU	A	223	18.277	59.534	52.972	1.00	31.05
	ATOM	1726	CA	GLU	A	223	18.173	60.885	52.539	1.00	28.81
	ATOM	1727	C	GLU	A	223	19.612	61.239	52.186	1.00	38.65
15	ATOM	1728	O	GLU	A	223	20.566	60.582	52.608	1.00	34.90
	ATOM	1729	CB	GLU	A	223	17.638	61.815	53.630	1.00	27.66
	ATOM	1730	CG	GLU	A	223	16.099	61.840	53.673	1.00	36.07
	ATOM	1731	CD	GLU	A	223	15.540	62.978	54.497	1.00	57.21
	ATOM	1732	OE1	GLU	A	223	15.442	64.108	54.071	1.00	40.65
20	ATOM	1733	OE2	GLU	A	223	15.155	62.645	55.711	1.00	38.93
	ATOM	1734	N	LYS	A	224	19.740	62.273	51.372	1.00	39.48
	ATOM	1735	CA	LYS	A	224	20.983	62.809	50.871	1.00	37.65
	ATOM	1736	C	LYS	A	224	22.045	62.999	51.962	1.00	35.43
	ATOM	1737	O	LYS	A	224	23.215	62.614	51.833	1.00	35.56
25	ATOM	1738	CB	LYS	A	224	20.645	64.109	50.115	1.00	39.12
	ATOM	1739	CG	LYS	A	224	21.806	64.741	49.359	1.00	73.65
	ATOM	1740	CD	LYS	A	224	21.391	65.942	48.513	1.00	100.00
	ATOM	1741	CE	LYS	A	224	21.854	67.295	49.055	1.00	100.00
	ATOM	1742	NZ	LYS	A	224	21.228	68.446	48.366	1.00	100.00
30	ATOM	1743	N	GLU	A	225	21.631	63.614	53.061	1.00	29.04
	ATOM	1744	CA	GLU	A	225	22.503	63.910	54.177	1.00	29.49
	ATOM	1745	C	GLU	A	225	23.114	62.705	54.868	1.00	38.42
	ATOM	1746	O	GLU	A	225	24.074	62.857	55.612	1.00	41.35
	ATOM	1747	CB	GLU	A	225	21.760	64.741	55.223	1.00	32.49
35	ATOM	1748	CG	GLU	A	225	20.251	64.516	55.075	1.00	59.17
	ATOM	1749	CD	GLU	A	225	19.687	65.377	53.982	1.00	72.33
	ATOM	1750	OE1	GLU	A	225	20.013	66.539	53.851	1.00	51.07
	ATOM	1751	OE2	GLU	A	225	18.840	64.757	53.195	1.00	54.65
	ATOM	1752	N	GLN	A	226	22.575	61.511	54.647	1.00	36.99
40	ATOM	1753	CA	GLN	A	226	23.114	60.333	55.307	1.00	33.80
	ATOM	1754	C	GLN	A	226	23.845	59.389	54.379	1.00	32.45
	ATOM	1755	O	GLN	A	226	24.549	58.487	54.812	1.00	29.61
	ATOM	1756	CB	GLN	A	226	21.953	59.585	55.988	1.00	33.92
	ATOM	1757	CG	GLN	A	226	21.625	60.145	57.379	1.00	27.50
	ATOM	1758	CD	GLN	A	226	21.179	61.600	57.359	1.00	47.10
45	ATOM	1759	OE1	GLN	A	226	21.839	62.495	57.933	1.00	40.63
	ATOM	1760	NE2	GLN	A	226	20.042	61.842	56.717	1.00	26.24
	ATOM	1761	N	VAL	A	227	23.678	59.591	53.084	1.00	33.73
	ATOM	1762	CA	VAL	A	227	24.256	58.708	52.072	1.00	36.03
50	ATOM	1763	C	VAL	A	227	25.733	58.366	52.155	1.00	38.24
	ATOM	1764	O	VAL	A	227	26.180	57.209	52.105	1.00	36.89
	ATOM	1765	CB	VAL	A	227	23.935	59.160	50.648	1.00	41.90
	ATOM	1766	CG1	VAL	A	227	25.168	58.940	49.784	1.00	41.75
	ATOM	1767	CG2	VAL	A	227	22.767	58.374	50.066	1.00	41.36
55	ATOM	1768	N	GLU	A	228	26.504	59.419	52.206	1.00	29.72
	ATOM	1769	CA	GLU	A	228	27.917	59.259	52.217	1.00	29.22
	ATOM	1770	C	GLU	A	228	28.437	58.475	53.393	1.00	34.68
	ATOM	1771	O	GLU	A	228	29.243	57.544	53.266	1.00	34.08
	ATOM	1772	CB	GLU	A	228	28.512	60.665	52.133	1.00	33.75
60	ATOM	1773	CG	GLU	A	228	28.603	61.094	50.642	1.00	67.15
	ATOM	1774	CD	GLU	A	228	29.180	60.016	49.748	1.00	100.00
	ATOM	1775	OE1	GLU	A	228	30.366	59.735	49.725	1.00	100.00
	ATOM	1776	OE2	GLU	A	228	28.288	59.395	49.010	1.00	93.51
	ATOM	1777	N	LYS	A	229	27.966	58.893	54.561	1.00	35.63
	ATOM	1778	CA	LYS	A	229	28.363	58.244	55.804	1.00	35.00

	ATOM	1779	C	LYS	A	229	27.866	56.794	55.838	1.00	29.64
	ATOM	1780	O	LYS	A	229	28.543	55.844	56.251	1.00	32.26
	ATOM	1781	CB	LYS	A	229	27.924	59.086	56.995	1.00	40.51
5	ATOM	1782	CG	LYS	A	229	28.344	58.551	58.355	1.00	81.35
	ATOM	1783	CD	LYS	A	229	28.898	59.623	59.293	1.00	100.00
	ATOM	1784	CE	LYS	A	229	29.377	59.096	60.648	1.00	100.00
	ATOM	1785	NZ	LYS	A	229	30.083	60.097	61.477	1.00	100.00
	ATOM	1786	N	SER	A	230	26.660	56.593	55.349	1.00	23.52
10	ATOM	1787	CA	SER	A	230	26.178	55.239	55.340	1.00	22.02
	ATOM	1788	C	SER	A	230	27.057	54.388	54.459	1.00	28.88
	ATOM	1789	O	SER	A	230	27.446	53.270	54.798	1.00	26.72
	ATOM	1790	CB	SER	A	230	24.794	55.259	54.768	1.00	24.16
	ATOM	1791	OG	SER	A	230	23.976	55.991	55.660	1.00	31.92
	ATOM	1792	N	ALA	A	231	27.338	54.956	53.295	1.00	30.71
15	ATOM	1793	CA	ALA	A	231	28.162	54.287	52.314	1.00	31.57
	ATOM	1794	C	ALA	A	231	29.460	53.827	52.957	1.00	35.46
	ATOM	1795	O	ALA	A	231	29.919	52.702	52.752	1.00	38.54
	ATOM	1796	CB	ALA	A	231	28.363	55.167	51.087	1.00	31.57
20	ATOM	1797	N	TYR	A	232	30.052	54.699	53.773	1.00	32.67
	ATOM	1798	CA	TYR	A	232	31.271	54.323	54.472	1.00	30.97
	ATOM	1799	C	TYR	A	232	31.016	53.245	55.541	1.00	31.41
	ATOM	1800	O	TYR	A	232	31.694	52.206	55.613	1.00	25.59
	ATOM	1801	CB	TYR	A	232	31.896	55.533	55.199	1.00	31.17
25	ATOM	1802	CG	TYR	A	232	33.004	55.084	56.136	1.00	36.66
	ATOM	1803	CD1	TYR	A	232	34.306	54.872	55.667	1.00	38.45
	ATOM	1804	CD2	TYR	A	232	32.744	54.825	57.484	1.00	38.25
	ATOM	1805	CE1	TYR	A	232	35.336	54.432	56.501	1.00	38.86
	ATOM	1806	CE2	TYR	A	232	33.761	54.375	58.332	1.00	40.20
30	ATOM	1807	CZ	TYR	A	232	35.054	54.174	57.844	1.00	53.86
	ATOM	1808	OH	TYR	A	232	36.048	53.741	58.690	1.00	61.49
	ATOM	1809	N	GLU	A	233	30.031	53.541	56.397	1.00	25.55
	ATOM	1810	CA	GLU	A	233	29.707	52.671	57.515	1.00	26.18
	ATOM	1811	C	GLU	A	233	29.512	51.180	57.188	1.00	29.28
35	ATOM	1812	O	GLU	A	233	29.995	50.286	57.894	1.00	24.42
	ATOM	1813	CB	GLU	A	233	28.552	53.249	58.378	1.00	25.67
	ATOM	1814	CG	GLU	A	233	28.555	52.694	59.834	1.00	18.89
	ATOM	1815	CD	GLU	A	233	29.382	53.550	60.760	1.00	26.93
	ATOM	1816	OE1	GLU	A	233	29.452	54.765	60.620	1.00	27.88
40	ATOM	1817	OE2	GLU	A	233	30.040	52.884	61.693	1.00	24.94
	ATOM	1818	N	PHE	A	234	28.771	50.928	56.103	1.00	24.06
	ATOM	1819	CA	PHE	A	234	28.405	49.601	55.690	1.00	21.98
	ATOM	1820	C	PHE	A	234	29.236	48.989	54.590	1.00	28.86
	ATOM	1821	O	PHE	A	234	28.824	48.018	53.970	1.00	31.83
45	ATOM	1822	CB	PHE	A	234	26.896	49.559	55.393	1.00	24.08
	ATOM	1823	CG	PHE	A	234	26.104	50.243	56.504	1.00	26.00
	ATOM	1824	CD1	PHE	A	234	26.254	49.860	57.840	1.00	25.17
	ATOM	1825	CD2	PHE	A	234	25.221	51.293	56.243	1.00	24.04
	ATOM	1826	CE1	PHE	A	234	25.543	50.470	58.875	1.00	22.99
50	ATOM	1827	CE2	PHE	A	234	24.510	51.932	57.263	1.00	27.32
	ATOM	1828	CZ	PHE	A	234	24.676	51.524	58.588	1.00	21.69
	ATOM	1829	N	SER	A	235	30.404	49.560	54.355	1.00	26.37
	ATOM	1830	CA	SER	A	235	31.316	49.070	53.330	1.00	23.42
	ATOM	1831	C	SER	A	235	31.477	47.546	53.325	1.00	29.66
55	ATOM	1832	O	SER	A	235	31.561	46.923	52.270	1.00	28.78
	ATOM	1833	CB	SER	A	235	32.649	49.751	53.541	1.00	21.15
	ATOM	1834	OG	SER	A	235	33.483	48.977	54.386	1.00	30.93
	ATOM	1835	N	GLU	A	236	31.514	46.917	54.506	1.00	26.42
	ATOM	1836	CA	GLU	A	236	31.708	45.477	54.600	1.00	24.96
60	ATOM	1837	C	GLU	A	236	30.566	44.562	54.193	1.00	25.09
	ATOM	1838	O	GLU	A	236	30.719	43.346	54.196	1.00	24.51
	ATOM	1839	CB	GLU	A	236	32.243	45.007	55.968	1.00	27.28
	ATOM	1840	CG	GLU	A	236	33.391	45.867	56.539	1.00	29.83
	ATOM	1841	CD	GLU	A	236	33.396	45.909	58.055	1.00	62.44
	ATOM	1842	OE1	GLU	A	236	32.410	46.157	58.739	1.00	33.13

	ATOM	1843	OE2	GLU	A	236	34.574	45.665	58.572	1.00	45.68
	ATOM	1844	N	THR	A	237	29.428	45.112	53.843	1.00	20.37
	ATOM	1845	CA	THR	A	237	28.298	44.271	53.487	1.00	20.82
5	ATOM	1846	C	THR	A	237	28.534	43.130	52.541	1.00	29.25
	ATOM	1847	O	THR	A	237	28.150	42.007	52.817	1.00	32.13
	ATOM	1848	CB	THR	A	237	27.137	45.128	52.989	1.00	27.71
	ATOM	1849	OG1	THR	A	237	26.840	46.044	54.020	1.00	30.30
	ATOM	1850	CG2	THR	A	237	25.909	44.303	52.610	1.00	21.64
10	ATOM	1851	N	GLU	A	238	29.126	43.411	51.399	1.00	26.94
	ATOM	1852	CA	GLU	A	238	29.306	42.335	50.454	1.00	27.70
	ATOM	1853	C	GLU	A	238	30.150	41.241	51.009	1.00	26.72
	ATOM	1854	O	GLU	A	238	29.896	40.077	50.782	1.00	32.69
	ATOM	1855	CB	GLU	A	238	29.844	42.795	49.088	1.00	28.58
15	ATOM	1856	CG	GLU	A	238	30.088	41.593	48.154	1.00	27.86
	ATOM	1857	CD	GLU	A	238	28.859	40.827	47.718	1.00	21.53
	ATOM	1858	OE1	GLU	A	238	27.709	41.240	47.709	1.00	31.37
	ATOM	1859	OE2	GLU	A	238	29.193	39.652	47.262	1.00	28.77
	ATOM	1860	N	SER	A	239	31.179	41.605	51.727	1.00	21.43
20	ATOM	1861	CA	SER	A	239	32.002	40.540	52.279	1.00	20.35
	ATOM	1862	C	SER	A	239	31.235	39.691	53.270	1.00	27.26
	ATOM	1863	O	SER	A	239	31.524	38.499	53.482	1.00	24.57
	ATOM	1864	CB	SER	A	239	33.268	41.078	52.951	1.00	28.19
	ATOM	1865	OG	SER	A	239	32.986	41.780	54.157	1.00	38.57
25	ATOM	1866	N	MET	A	240	30.240	40.330	53.910	1.00	26.94
	ATOM	1867	CA	MET	A	240	29.432	39.610	54.898	1.00	20.31
	ATOM	1868	C	MET	A	240	28.541	38.616	54.210	1.00	17.27
	ATOM	1869	O	MET	A	240	28.413	37.482	54.657	1.00	19.98
	ATOM	1870	CB	MET	A	240	28.609	40.545	55.802	1.00	20.22
30	ATOM	1871	CG	MET	A	240	29.543	41.286	56.744	1.00	21.15
	ATOM	1872	SD	MET	A	240	28.696	42.501	57.783	1.00	24.45
	ATOM	1873	CE	MET	A	240	29.842	42.552	59.180	1.00	22.66
	ATOM	1874	N	LEU	A	241	27.958	39.073	53.114	1.00	21.32
	ATOM	1875	CA	LEU	A	241	27.070	38.293	52.255	1.00	24.19
35	ATOM	1876	C	LEU	A	241	27.822	37.062	51.812	1.00	27.53
	ATOM	1877	O	LEU	A	241	27.328	35.950	51.882	1.00	29.31
	ATOM	1878	CB	LEU	A	241	26.656	39.080	50.991	1.00	25.13
	ATOM	1879	CG	LEU	A	241	25.493	40.037	51.219	1.00	30.35
	ATOM	1880	CD1	LEU	A	241	25.400	41.089	50.119	1.00	27.92
40	ATOM	1881	CD2	LEU	A	241	24.213	39.220	51.277	1.00	33.53
	ATOM	1882	N	LYS	A	242	29.060	37.257	51.378	1.00	25.05
	ATOM	1883	CA	LYS	A	242	29.822	36.095	50.972	1.00	23.44
	ATOM	1884	C	LYS	A	242	30.013	35.091	52.100	1.00	24.02
	ATOM	1885	O	LYS	A	242	29.895	33.880	51.889	1.00	20.91
45	ATOM	1886	CB	LYS	A	242	31.131	36.414	50.252	1.00	26.75
	ATOM	1887	CG	LYS	A	242	30.946	36.983	48.856	1.00	34.89
	ATOM	1888	CD	LYS	A	242	31.238	38.475	48.764	1.00	72.37
	ATOM	1889	CE	LYS	A	242	32.118	38.849	47.572	1.00	83.37
	ATOM	1890	NZ	LYS	A	242	31.373	39.172	46.343	1.00	63.05
50	ATOM	1891	N	ILE	A	243	30.332	35.551	53.319	1.00	21.99
	ATOM	1892	CA	ILE	A	243	30.530	34.589	54.412	1.00	21.52
	ATOM	1893	C	ILE	A	243	29.251	33.777	54.684	1.00	22.96
	ATOM	1894	O	ILE	A	243	29.197	32.554	54.801	1.00	22.71
	ATOM	1895	CB	ILE	A	243	31.058	35.328	55.644	1.00	26.02
55	ATOM	1896	CG1	ILE	A	243	32.372	36.021	55.261	1.00	31.56
	ATOM	1897	CG2	ILE	A	243	31.313	34.376	56.803	1.00	22.17
	ATOM	1898	CD1	ILE	A	243	33.036	36.860	56.363	1.00	18.00
	ATOM	1899	N	ALA	A	244	28.166	34.528	54.762	1.00	25.12
	ATOM	1900	CA	ALA	A	244	26.863	33.979	55.015	1.00	23.22
60	ATOM	1901	C	ALA	A	244	26.500	32.902	53.995	1.00	29.00
	ATOM	1902	O	ALA	A	244	25.878	31.893	54.323	1.00	28.18
	ATOM	1903	CB	ALA	A	244	25.901	35.157	55.072	1.00	21.72
	ATOM	1904	N	GLU	A	245	26.892	33.104	52.731	1.00	27.16
	ATOM	1905	CA	GLU	A	245	26.581	32.130	51.706	1.00	22.70
	ATOM	1906	C	GLU	A	245	27.328	30.874	52.001	1.00	25.30

	ATOM	1907	O	GLU	A	245	26.844	29.762	51.887	1.00	28.85
	ATOM	1908	CB	GLU	A	245	26.915	32.653	50.315	1.00	22.34
	ATOM	1909	CG	GLU	A	245	25.838	33.625	49.841	1.00	26.07
	ATOM	1910	CD	GLU	A	245	26.137	34.180	48.472	1.00	52.41
5	ATOM	1911	OE1	GLU	A	245	27.101	34.897	48.236	1.00	39.38
	ATOM	1912	OE2	GLU	A	245	25.260	33.798	47.566	1.00	37.85
	ATOM	1913	N	ASP	A	246	28.540	31.079	52.445	1.00	27.12
	ATOM	1914	CA	ASP	A	246	29.361	29.946	52.792	1.00	29.38
10	ATOM	1915	C	ASP	A	246	28.782	29.251	53.996	1.00	27.88
	ATOM	1916	O	ASP	A	246	28.832	28.037	54.170	1.00	23.60
	ATOM	1917	CB	ASP	A	246	30.857	30.287	53.015	1.00	34.30
	ATOM	1918	CG	ASP	A	246	31.627	29.070	53.420	1.00	63.22
	ATOM	1919	OD1	ASP	A	246	31.877	28.135	52.678	1.00	70.56
	ATOM	1920	OD2	ASP	A	246	31.934	29.082	54.686	1.00	89.74
15	ATOM	1921	N	LEU	A	247	28.191	30.025	54.861	1.00	22.96
	ATOM	1922	CA	LEU	A	247	27.644	29.333	56.028	1.00	26.75
	ATOM	1923	C	LEU	A	247	26.274	28.715	55.782	1.00	25.45
	ATOM	1924	O	LEU	A	247	25.966	27.625	56.268	1.00	26.16
20	ATOM	1925	CB	LEU	A	247	27.522	30.296	57.251	1.00	28.55
	ATOM	1926	CG	LEU	A	247	28.834	30.551	58.009	1.00	35.08
	ATOM	1927	CD1	LEU	A	247	30.008	30.474	57.061	1.00	37.19
	ATOM	1928	CD2	LEU	A	247	28.799	31.948	58.597	1.00	33.92
	ATOM	1929	N	GLY	A	248	25.401	29.437	55.086	1.00	21.51
25	ATOM	1930	CA	GLY	A	248	24.075	28.880	54.940	1.00	22.31
	ATOM	1931	C	GLY	A	248	23.729	28.415	53.550	1.00	28.05
	ATOM	1932	O	GLY	A	248	22.623	27.946	53.306	1.00	27.83
	ATOM	1933	N	GLY	A	249	24.657	28.534	52.622	1.00	23.33
	ATOM	1934	CA	GLY	A	249	24.262	28.120	51.289	1.00	21.34
30	ATOM	1935	C	GLY	A	249	23.976	29.381	50.493	1.00	30.63
	ATOM	1936	O	GLY	A	249	24.178	30.490	50.960	1.00	30.72
	ATOM	1937	N	PRO	A	250	23.527	29.227	49.262	1.00	37.05
	ATOM	1938	CA	PRO	A	250	23.264	30.361	48.403	1.00	37.47
	ATOM	1939	C	PRO	A	250	22.230	31.367	48.883	1.00	35.89
35	ATOM	1940	O	PRO	A	250	21.184	31.002	49.410	1.00	32.74
	ATOM	1941	CB	PRO	A	250	22.704	29.749	47.114	1.00	41.49
	ATOM	1942	CG	PRO	A	250	22.260	28.330	47.442	1.00	47.11
	ATOM	1943	CD	PRO	A	250	22.942	27.959	48.743	1.00	40.92
	ATOM	1944	N	TYR	A	251	22.533	32.637	48.620	1.00	27.85
40	ATOM	1945	CA	TYR	A	251	21.660	33.756	48.887	1.00	24.11
	ATOM	1946	C	TYR	A	251	20.665	33.769	47.747	1.00	30.54
	ATOM	1947	O	TYR	A	251	21.068	34.022	46.622	1.00	36.51
	ATOM	1948	CB	TYR	A	251	22.482	35.026	48.722	1.00	22.57
	ATOM	1949	CG	TYR	A	251	21.650	36.243	48.975	1.00	24.77
45	ATOM	1950	CD1	TYR	A	251	21.189	36.479	50.269	1.00	28.27
	ATOM	1951	CD2	TYR	A	251	21.288	37.118	47.953	1.00	23.82
	ATOM	1952	CE1	TYR	A	251	20.398	37.589	50.560	1.00	27.52
	ATOM	1953	CE2	TYR	A	251	20.503	38.239	48.227	1.00	21.46
	ATOM	1954	CZ	TYR	A	251	20.069	38.471	49.533	1.00	30.19
50	ATOM	1955	OH	TYR	A	251	19.310	39.565	49.839	1.00	26.69
	ATOM	1956	N	VAL	A	252	19.389	33.528	47.996	1.00	21.77
	ATOM	1957	CA	VAL	A	252	18.419	33.432	46.922	1.00	22.73
	ATOM	1958	C	VAL	A	252	17.553	34.632	46.586	1.00	30.33
	ATOM	1959	O	VAL	A	252	16.701	34.572	45.683	1.00	31.28
55	ATOM	1960	CB	VAL	A	252	17.477	32.314	47.337	1.00	28.37
	ATOM	1961	CG1	VAL	A	252	18.252	31.009	47.541	1.00	27.04
	ATOM	1962	CG2	VAL	A	252	16.639	32.723	48.572	1.00	29.19
	ATOM	1963	N	TRP	A	253	17.733	35.711	47.324	1.00	24.23
	ATOM	1964	CA	TRP	A	253	16.883	36.868	47.152	1.00	22.27
60	ATOM	1965	C	TRP	A	253	17.300	37.793	46.041	1.00	27.00
	ATOM	1966	O	TRP	A	253	16.557	38.683	45.646	1.00	27.03
	ATOM	1967	CB	TRP	A	253	16.782	37.617	48.482	1.00	20.01
	ATOM	1968	CG	TRP	A	253	16.465	36.613	49.516	1.00	20.82
	ATOM	1969	CD1	TRP	A	253	17.322	35.799	50.186	1.00	23.01
	ATOM	1970	CD2	TRP	A	253	15.137	36.270	49.921	1.00	20.48

	ATOM	1971	NE1	TRP	A	253	16.601	34.977	51.043	1.00	23.74
	ATOM	1972	CE2	TRP	A	253	15.254	35.266	50.904	1.00	24.56
	ATOM	1973	CE3	TRP	A	253	13.882	36.771	49.588	1.00	22.14
5	ATOM	1974	CZ2	TRP	A	253	14.109	34.730	51.517	1.00	23.35
	ATOM	1975	CZ3	TRP	A	253	12.768	36.257	50.222	1.00	23.92
	ATOM	1976	CH2	TRP	A	253	12.874	35.239	51.177	1.00	23.31
	ATOM	1977	N	GLY	A	254	18.501	37.611	45.545	1.00	27.81
	ATOM	1978	CA	GLY	A	254	18.892	38.465	44.452	1.00	28.22
	ATOM	1979	C	GLY	A	254	19.621	39.697	44.909	1.00	35.44
10	ATOM	1980	O	GLY	A	254	20.847	39.714	44.874	1.00	43.76
	ATOM	1981	N	GLN	A	255	18.881	40.732	45.300	1.00	27.98
	ATOM	1982	CA	GLN	A	255	19.534	41.960	45.744	1.00	27.20
	ATOM	1983	C	GLN	A	255	19.640	42.000	47.258	1.00	29.51
	ATOM	1984	O	GLN	A	255	18.806	41.408	47.954	1.00	28.12
15	ATOM	1985	CB	GLN	A	255	18.662	43.159	45.345	1.00	28.02
	ATOM	1986	CG	GLN	A	255	19.350	44.520	45.558	1.00	45.41
	ATOM	1987	CD	GLN	A	255	20.484	44.770	44.589	1.00	58.13
	ATOM	1988	OE1	GLN	A	255	20.911	43.848	43.877	1.00	52.27
	ATOM	1989	NE2	GLN	A	255	20.982	46.004	44.575	1.00	30.88
20	ATOM	1990	N	TYR	A	256	20.653	42.704	47.744	1.00	27.70
	ATOM	1991	CA	TYR	A	256	20.809	42.901	49.172	1.00	26.42
	ATOM	1992	C	TYR	A	256	20.972	44.378	49.406	1.00	21.82
	ATOM	1993	O	TYR	A	256	22.075	44.858	49.525	1.00	23.87
	ATOM	1994	CB	TYR	A	256	21.869	42.093	49.955	1.00	27.12
25	ATOM	1995	CG	TYR	A	256	21.726	42.369	51.460	1.00	21.81
	ATOM	1996	CD1	TYR	A	256	20.740	41.730	52.215	1.00	20.63
	ATOM	1997	CD2	TYR	A	256	22.547	43.282	52.130	1.00	21.46
	ATOM	1998	CE1	TYR	A	256	20.573	42.001	53.579	1.00	17.95
	ATOM	1999	CE2	TYR	A	256	22.405	43.573	53.490	1.00	21.50
30	ATOM	2000	CZ	TYR	A	256	21.412	42.913	54.223	1.00	32.29
	ATOM	2001	OH	TYR	A	256	21.239	43.150	55.580	1.00	22.78
	ATOM	2002	N	ASP	A	257	19.880	45.109	49.398	1.00	19.68
	ATOM	2003	CA	ASP	A	257	20.005	46.529	49.608	1.00	21.07
	ATOM	2004	C	ASP	A	257	19.808	46.875	51.089	1.00	31.39
35	ATOM	2005	O	ASP	A	257	19.263	46.079	51.872	1.00	27.96
	ATOM	2006	CB	ASP	A	257	19.010	47.346	48.760	1.00	19.02
	ATOM	2007	CG	ASP	A	257	19.455	47.592	47.327	1.00	28.98
	ATOM	2008	OD1	ASP	A	257	20.490	47.136	46.840	1.00	23.83
	ATOM	2009	OD2	ASP	A	257	18.582	48.312	46.645	1.00	28.76
40	ATOM	2010	N	LEU	A	258	20.251	48.099	51.423	1.00	27.55
	ATOM	2011	CA	LEU	A	258	20.145	48.669	52.746	1.00	24.78
	ATOM	2012	C	LEU	A	258	19.434	50.003	52.680	1.00	30.32
	ATOM	2013	O	LEU	A	258	19.615	50.784	51.732	1.00	31.77
	ATOM	2014	CB	LEU	A	258	21.511	48.889	53.440	1.00	23.08
45	ATOM	2015	CG	LEU	A	258	22.225	47.626	53.916	1.00	24.93
	ATOM	2016	CD1	LEU	A	258	23.687	47.922	54.245	1.00	21.22
	ATOM	2017	CD2	LEU	A	258	21.538	47.060	55.152	1.00	21.84
	ATOM	2018	N	LEU	A	259	18.644	50.245	53.726	1.00	23.21
	ATOM	2019	CA	LEU	A	259	17.936	51.484	53.915	1.00	21.37
50	ATOM	2020	C	LEU	A	259	18.185	52.045	55.330	1.00	27.59
	ATOM	2021	O	LEU	A	259	17.771	51.432	56.319	1.00	26.86
	ATOM	2022	CB	LEU	A	259	16.433	51.307	53.702	1.00	18.80
	ATOM	2023	CG	LEU	A	259	15.667	52.543	54.132	1.00	19.47
	ATOM	2024	CD1	LEU	A	259	15.857	53.670	53.128	1.00	21.23
55	ATOM	2025	CD2	LEU	A	259	14.192	52.205	54.204	1.00	18.79
	ATOM	2026	N	VAL	A	260	18.847	53.205	55.408	1.00	21.57
	ATOM	2027	CA	VAL	A	260	19.111	53.903	56.648	1.00	21.30
	ATOM	2028	C	VAL	A	260	17.968	54.863	56.866	1.00	30.36
	ATOM	2029	O	VAL	A	260	17.833	55.881	56.181	1.00	31.96
60	ATOM	2030	CB	VAL	A	260	20.403	54.663	56.563	1.00	24.67
	ATOM	2031	CG1	VAL	A	260	20.789	55.226	57.929	1.00	22.98
	ATOM	2032	CG2	VAL	A	260	21.446	53.677	56.074	1.00	26.02
	ATOM	2033	N	LEU	A	261	17.116	54.507	57.818	1.00	23.24
	ATOM	2034	CA	LEU	A	261	15.930	55.273	58.105	1.00	19.43

	ATOM	2035	C	LEU	A	261	16.171	56.472	58.971	1.00	23.79
	ATOM	2036	O	LEU	A	261	17.278	56.708	59.443	1.00	25.06
	ATOM	2037	CB	LEU	A	261	14.943	54.367	58.842	1.00	19.66
5	ATOM	2038	CG	LEU	A	261	14.286	53.442	57.827	1.00	28.61
	ATOM	2039	CD1	LEU	A	261	14.992	52.089	57.734	1.00	28.87
	ATOM	2040	CD2	LEU	A	261	12.786	53.354	58.044	1.00	37.75
	ATOM	2041	N	PRO	A	262	15.087	57.203	59.170	1.00	25.75
	ATOM	2042	CA	PRO	A	262	15.137	58.343	60.051	1.00	27.87
10	ATOM	2043	C	PRO	A	262	15.219	57.793	61.487	1.00	29.99
	ATOM	2044	O	PRO	A	262	14.875	56.636	61.792	1.00	25.40
	ATOM	2045	CB	PRO	A	262	13.872	59.168	59.811	1.00	28.11
	ATOM	2046	CG	PRO	A	262	13.039	58.416	58.792	1.00	29.99
	ATOM	2047	CD	PRO	A	262	13.722	57.078	58.569	1.00	24.33
15	ATOM	2048	N	PRO	A	263	15.704	58.649	62.378	1.00	27.92
	ATOM	2049	CA	PRO	A	263	15.950	58.306	63.776	1.00	22.66
	ATOM	2050	C	PRO	A	263	14.891	57.588	64.585	1.00	21.89
	ATOM	2051	O	PRO	A	263	15.234	56.802	65.462	1.00	22.12
	ATOM	2052	CB	PRO	A	263	16.552	59.545	64.448	1.00	23.50
20	ATOM	2053	CG	PRO	A	263	16.866	60.527	63.325	1.00	29.26
	ATOM	2054	CD	PRO	A	263	16.003	60.104	62.142	1.00	26.83
	ATOM	2055	N	SER	A	264	13.621	57.862	64.315	1.00	21.95
	ATOM	2056	CA	SER	A	264	12.531	57.219	65.037	1.00	21.99
	ATOM	2057	C	SER	A	264	12.344	55.765	64.610	1.00	16.88
25	ATOM	2058	O	SER	A	264	11.457	55.099	65.134	1.00	16.95
	ATOM	2059	CB	SER	A	264	11.206	57.962	64.947	1.00	26.27
	ATOM	2060	OG	SER	A	264	10.928	58.148	63.564	1.00	26.00
	ATOM	2061	N	PHE	A	265	13.154	55.245	63.675	1.00	17.99
	ATOM	2062	CA	PHE	A	265	12.949	53.832	63.372	1.00	18.59
30	ATOM	2063	C	PHE	A	265	13.104	53.056	64.707	1.00	21.28
	ATOM	2064	O	PHE	A	265	14.080	53.190	65.453	1.00	17.40
	ATOM	2065	CB	PHE	A	265	13.961	53.395	62.300	1.00	19.34
	ATOM	2066	CG	PHE	A	265	13.738	51.955	61.907	1.00	22.24
	ATOM	2067	CD1	PHE	A	265	12.492	51.545	61.432	1.00	20.61
35	ATOM	2068	CD2	PHE	A	265	14.769	51.016	62.003	1.00	24.16
	ATOM	2069	CE1	PHE	A	265	12.264	50.221	61.061	1.00	21.03
	ATOM	2070	CE2	PHE	A	265	14.572	49.687	61.620	1.00	23.73
	ATOM	2071	CZ	PHE	A	265	13.311	49.300	61.161	1.00	20.97
	ATOM	2072	N	PRO	A	266	12.126	52.262	65.075	1.00	16.27
40	ATOM	2073	CA	PRO	A	266	12.147	51.558	66.343	1.00	15.83
	ATOM	2074	C	PRO	A	266	13.168	50.441	66.590	1.00	16.31
	ATOM	2075	O	PRO	A	266	13.354	50.045	67.733	1.00	12.99
	ATOM	2076	CB	PRO	A	266	10.744	50.987	66.520	1.00	15.93
	ATOM	2077	CG	PRO	A	266	10.017	51.164	65.205	1.00	18.48
45	ATOM	2078	CD	PRO	A	266	10.879	52.008	64.308	1.00	14.04
	ATOM	2079	N	TYR	A	267	13.785	49.894	65.537	1.00	16.40
	ATOM	2080	CA	TYR	A	267	14.752	48.813	65.694	1.00	15.75
	ATOM	2081	C	TYR	A	267	16.131	49.180	65.197	1.00	19.44
	ATOM	2082	O	TYR	A	267	16.342	50.176	64.499	1.00	18.10
50	ATOM	2083	CB	TYR	A	267	14.269	47.507	65.006	1.00	17.45
	ATOM	2084	CG	TYR	A	267	12.954	47.043	65.626	1.00	19.30
	ATOM	2085	CD1	TYR	A	267	12.992	46.238	66.766	1.00	19.19
	ATOM	2086	CD2	TYR	A	267	11.705	47.435	65.127	1.00	14.85
	ATOM	2087	CE1	TYR	A	267	11.806	45.817	67.369	1.00	21.05
55	ATOM	2088	CE2	TYR	A	267	10.512	47.032	65.734	1.00	9.78
	ATOM	2089	CZ	TYR	A	267	10.563	46.208	66.861	1.00	13.87
	ATOM	2090	OH	TYR	A	267	9.427	45.791	67.529	1.00	15.56
	ATOM	2091	N	GLY	A	268	17.091	48.353	65.583	1.00	14.17
	ATOM	2092	CA	GLY	A	268	18.460	48.522	65.122	1.00	15.06
60	ATOM	2093	C	GLY	A	268	18.508	48.085	63.652	1.00	19.31
	ATOM	2094	O	GLY	A	268	19.152	48.695	62.809	1.00	17.05
	ATOM	2095	N	GLY	A	269	17.773	47.011	63.360	1.00	18.06
	ATOM	2096	CA	GLY	A	269	17.688	46.453	62.026	1.00	15.91
	ATOM	2097	C	GLY	A	269	16.438	45.598	61.892	1.00	16.11
	ATOM	2098	O	GLY	A	269	15.869	45.183	62.891	1.00	14.41



	ATOM	2099	N	MET	A	270	16.031	45.376	60.637	1.00	13.94
	ATOM	2100	CA	MET	A	270	14.868	44.605	60.233	1.00	13.83
	ATOM	2101	C	MET	A	270	15.162	43.978	58.874	1.00	21.59
5	ATOM	2102	O	MET	A	270	15.310	44.700	57.890	1.00	18.65
	ATOM	2103	CB	MET	A	270	13.590	45.444	60.058	1.00	16.36
	ATOM	2104	CG	MET	A	270	12.450	44.562	59.571	1.00	17.70
	ATOM	2105	SD	MET	A	270	11.946	43.379	60.866	1.00	21.03
	ATOM	2106	CE	MET	A	270	11.379	41.967	59.867	1.00	19.69
10	ATOM	2107	N	GLU	A	271	15.249	42.647	58.859	1.00	22.89
	ATOM	2108	CA	GLU	A	271	15.571	41.810	57.700	1.00	18.36
	ATOM	2109	C	GLU	A	271	14.546	41.835	56.562	1.00	20.73
	ATOM	2110	O	GLU	A	271	14.238	40.794	55.994	1.00	17.43
	ATOM	2111	CB	GLU	A	271	15.852	40.352	58.174	1.00	17.49
15	ATOM	2112	N	GLU	A	271	14.595	39.641	58.706	1.00	14.64
	ATOM	2113	CD	GLU	A	271	14.297	39.896	60.175	1.00	16.61
	ATOM	2114	OE1	GLU	A	271	14.592	40.925	60.774	1.00	16.52
	ATOM	2115	OE2	GLU	A	271	13.660	38.891	60.720	1.00	15.49
	ATOM	2116	N	ASN	A	272	13.985	42.991	56.218	1.00	16.76
20	ATOM	2117	CA	ASN	A	272	13.022	42.971	55.122	1.00	19.27
	ATOM	2118	C	ASN	A	272	13.741	42.476	53.880	1.00	17.37
	ATOM	2119	O	ASN	A	272	14.781	43.005	53.535	1.00	18.02
	ATOM	2120	CB	ASN	A	272	12.360	44.340	54.873	1.00	21.66
	ATOM	2121	CG	ASN	A	272	11.711	44.929	56.126	1.00	17.62
25	ATOM	2122	OD1	ASN	A	272	12.045	46.057	56.536	1.00	30.09
	ATOM	2123	ND2	ASN	A	272	10.846	44.154	56.773	1.00	14.05
	ATOM	2124	N	PRO	A	273	13.202	41.457	53.238	1.00	16.45
	ATOM	2125	CA	PRO	A	273	13.855	40.842	52.070	1.00	18.72
	ATOM	2126	C	PRO	A	273	14.199	41.795	50.934	1.00	25.09
30	ATOM	2127	O	PRO	A	273	13.350	42.525	50.420	1.00	25.34
	ATOM	2128	CB	PRO	A	273	12.985	39.662	51.608	1.00	17.23
	ATOM	2129	CG	PRO	A	273	11.682	39.824	52.370	1.00	19.73
	ATOM	2130	CD	PRO	A	273	11.839	40.918	53.426	1.00	14.09
	ATOM	2131	N	CYS	A	274	15.475	41.766	50.548	1.00	22.07
35	ATOM	2132	CA	CYS	A	274	16.006	42.590	49.475	1.00	25.86
	ATOM	2133	C	CYS	A	274	16.258	44.014	49.898	1.00	27.30
	ATOM	2134	O	CYS	A	274	16.910	44.743	49.142	1.00	25.31
	ATOM	2135	CB	CYS	A	274	15.096	42.678	48.220	1.00	28.73
	ATOM	2136	SG	CYS	A	274	14.579	41.105	47.493	1.00	31.75
40	ATOM	2137	N	LEU	A	275	15.729	44.378	51.073	1.00	22.65
	ATOM	2138	CA	LEU	A	275	15.850	45.744	51.607	1.00	23.25
	ATOM	2139	C	LEU	A	275	15.861	45.771	53.127	1.00	24.49
	ATOM	2140	O	LEU	A	275	14.857	46.049	53.766	1.00	20.30
	ATOM	2141	CB	LEU	A	275	14.720	46.664	51.076	1.00	21.69
45	ATOM	2142	CG	LEU	A	275	14.883	48.179	51.233	1.00	23.67
	ATOM	2143	CD1	LEU	A	275	16.161	48.676	50.567	1.00	21.04
	ATOM	2144	CD2	LEU	A	275	13.678	48.860	50.598	1.00	24.01
	ATOM	2145	N	THR	A	276	17.019	45.459	53.693	1.00	23.64
	ATOM	2146	CA	THR	A	276	17.168	45.522	55.142	1.00	23.40
50	ATOM	2147	C	THR	A	276	17.072	46.994	55.594	1.00	24.89
	ATOM	2148	O	THR	A	276	17.685	47.911	55.035	1.00	21.17
	ATOM	2149	CB	THR	A	276	18.493	44.855	55.596	1.00	27.90
	ATOM	2150	OG1	THR	A	276	18.355	43.451	55.661	1.00	27.28
	ATOM	2151	CG2	THR	A	276	19.029	45.362	56.936	1.00	23.58
55	ATOM	2152	N	PHE	A	277	16.247	47.234	56.612	1.00	22.02
	ATOM	2153	CA	PHE	A	277	16.088	48.573	57.195	1.00	20.16
	ATOM	2154	C	PHE	A	277	17.044	48.709	58.384	1.00	25.70
	ATOM	2155	O	PHE	A	277	17.162	47.764	59.167	1.00	21.88
	ATOM	2156	CB	PHE	A	277	14.694	48.687	57.829	1.00	18.17
60	ATOM	2157	CG	PHE	A	277	13.634	48.938	56.817	1.00	19.00
	ATOM	2158	CD1	PHE	A	277	13.835	48.531	55.500	1.00	24.17
	ATOM	2159	CD2	PHE	A	277	12.427	49.542	57.152	1.00	20.88
	ATOM	2160	CE1	PHE	A	277	12.862	48.745	54.525	1.00	23.52
	ATOM	2161	CE2	PHE	A	277	11.446	49.770	56.185	1.00	26.94
	ATOM	2162	CZ	PHE	A	277	11.659	49.364	54.865	1.00	22.89

	ATOM	2163	N	VAL	A	278	17.713	49.843	58.572	1.00	20.87
	ATOM	2164	CA	VAL	A	278	18.595	49.962	59.732	1.00	19.42
	ATOM	2165	C	VAL	A	278	18.432	51.321	60.375	1.00	23.68
5	ATOM	2166	O	VAL	A	278	18.086	52.292	59.711	1.00	19.82
	ATOM	2167	CB	VAL	A	278	20.094	49.721	59.491	1.00	18.82
	ATOM	2168	CG1	VAL	A	278	20.320	48.314	59.001	1.00	19.20
	ATOM	2169	CG2	VAL	A	278	20.715	50.743	58.521	1.00	15.74
	ATOM	2170	N	THR	A	279	18.751	51.374	61.655	1.00	18.56
10	ATOM	2171	CA	THR	A	279	18.702	52.616	62.391	1.00	18.24
	ATOM	2172	C	THR	A	279	19.889	53.506	61.996	1.00	19.64
	ATOM	2173	O	THR	A	279	20.971	53.008	61.740	1.00	19.05
	ATOM	2174	CB	THR	A	279	18.821	52.343	63.921	1.00	19.60
	ATOM	2175	OG1	THR	A	279	18.895	53.595	64.581	1.00	16.90
	ATOM	2176	CG2	THR	A	279	20.120	51.588	64.205	1.00	13.57
15	ATOM	2177	N	PRO	A	280	19.719	54.836	61.999	1.00	19.21
	ATOM	2178	CA	PRO	A	280	20.829	55.707	61.712	1.00	18.61
	ATOM	2179	C	PRO	A	280	21.772	55.699	62.912	1.00	21.55
	ATOM	2180	O	PRO	A	280	22.918	56.168	62.799	1.00	21.21
20	ATOM	2181	CB	PRO	A	280	20.267	57.113	61.511	1.00	19.88
	ATOM	2182	CG	PRO	A	280	18.901	57.068	62.176	1.00	18.63
	ATOM	2183	CD	PRO	A	280	18.448	55.624	62.007	1.00	17.87
	ATOM	2184	N	THR	A	281	21.303	55.127	64.044	1.00	20.04
	ATOM	2185	CA	THR	A	281	22.174	55.031	65.214	1.00	21.24
25	ATOM	2186	C	THR	A	281	23.367	54.097	65.002	1.00	22.67
	ATOM	2187	O	THR	A	281	24.300	54.031	65.829	1.00	20.18
	ATOM	2188	CB	THR	A	281	21.477	54.765	66.547	1.00	24.13
	ATOM	2189	OG1	THR	A	281	20.923	53.454	66.562	1.00	21.04
	ATOM	2190	CG2	THR	A	281	20.438	55.869	66.750	1.00	20.84
30	ATOM	2191	N	LEU	A	282	23.342	53.397	63.867	1.00	16.05
	ATOM	2192	CA	LEU	A	282	24.460	52.528	63.556	1.00	16.95
	ATOM	2193	C	LEU	A	282	25.644	53.343	63.000	1.00	23.24
	ATOM	2194	O	LEU	A	282	26.768	52.846	62.861	1.00	21.40
	ATOM	2195	CB	LEU	A	282	24.087	51.519	62.454	1.00	16.65
35	ATOM	2196	CG	LEU	A	282	23.053	50.463	62.813	1.00	20.67
	ATOM	2197	CD1	LEU	A	282	23.121	49.359	61.760	1.00	17.37
	ATOM	2198	CD2	LEU	A	282	23.359	49.877	64.193	1.00	11.35
	ATOM	2199	N	LEU	A	283	25.410	54.598	62.615	1.00	19.06
	ATOM	2200	CA	LEU	A	283	26.474	55.379	61.979	1.00	21.46
40	ATOM	2201	C	LEU	A	283	27.530	55.898	62.926	1.00	29.82
	ATOM	2202	O	LEU	A	283	27.608	57.107	63.129	1.00	30.36
	ATOM	2203	CB	LEU	A	283	25.861	56.561	61.208	1.00	20.36
	ATOM	2204	CG	LEU	A	283	24.829	56.070	60.198	1.00	26.22
	ATOM	2205	CD1	LEU	A	283	24.170	57.268	59.509	1.00	26.75
45	ATOM	2206	CD2	LEU	A	283	25.542	55.174	59.178	1.00	28.22
	ATOM	2207	N	ALA	A	284	28.307	54.983	63.499	1.00	24.27
	ATOM	2208	CA	ALA	A	284	29.299	55.346	64.481	1.00	23.44
	ATOM	2209	C	ALA	A	284	30.519	55.998	63.865	1.00	30.13
	ATOM	2210	O	ALA	A	284	31.280	56.659	64.566	1.00	28.42
50	ATOM	2211	CB	ALA	A	284	29.683	54.147	65.325	1.00	23.18
	ATOM	2212	N	GLY	A	285	30.706	55.829	62.561	1.00	26.03
	ATOM	2213	CA	GLY	A	285	31.852	56.425	61.898	1.00	23.94
	ATOM	2214	C	GLY	A	285	33.106	55.548	61.857	1.00	35.38
	ATOM	2215	O	GLY	A	285	34.152	55.934	61.321	1.00	35.31
55	ATOM	2216	N	ASP	A	286	33.010	54.339	62.409	1.00	29.64
	ATOM	2217	CA	ASP	A	286	34.121	53.427	62.408	1.00	22.48
	ATOM	2218	C	ASP	A	286	33.702	52.013	62.065	1.00	22.54
	ATOM	2219	O	ASP	A	286	34.484	51.120	62.321	1.00	20.43
	ATOM	2220	CB	ASP	A	286	34.798	53.422	63.776	1.00	22.77
60	ATOM	2221	CG	ASP	A	286	33.830	53.000	64.842	1.00	23.72
	ATOM	2222	OD1	ASP	A	286	32.727	52.571	64.605	1.00	23.69
	ATOM	2223	OD2	ASP	A	286	34.303	53.119	66.039	1.00	25.35
	ATOM	2224	N	LYS	A	287	32.483	51.824	61.557	1.00	18.47
	ATOM	2225	CA	LYS	A	287	31.998	50.498	61.175	1.00	19.69
	ATOM	2226	C	LYS	A	287	31.839	49.507	62.330	1.00	23.72

	ATOM	2227	O	LYS	A	287	31.524	48.328	62.143	1.00	23.33
	ATOM	2228	CB	LYS	A	287	32.928	49.860	60.138	1.00	23.38
	ATOM	2229	CG	LYS	A	287	33.393	50.760	58.992	1.00	28.89
5	ATOM	2230	CD	LYS	A	287	34.194	49.994	57.933	1.00	29.02
	ATOM	2231	CE	LYS	A	287	35.016	50.878	56.992	1.00	29.20
	ATOM	2232	NZ	LYS	A	287	34.225	51.494	55.908	1.00	31.15
	ATOM	2233	N	SER	A	288	32.090	49.993	63.537	1.00	23.67
	ATOM	2234	CA	SER	A	288	32.033	49.195	64.756	1.00	21.48
10	ATOM	2235	C	SER	A	288	30.681	48.520	65.080	1.00	24.82
	ATOM	2236	O	SER	A	288	30.644	47.530	65.833	1.00	23.30
	ATOM	2237	CB	SER	A	288	32.568	50.021	65.915	1.00	17.62
	ATOM	2238	OG	SER	A	288	31.613	50.986	66.283	1.00	22.51
	ATOM	2239	N	LEU	A	289	29.577	49.068	64.546	1.00	17.98
	ATOM	2240	CA	LEU	A	289	28.235	48.524	64.763	1.00	17.52
15	ATOM	2241	C	LEU	A	289	27.719	47.621	63.632	1.00	25.16
	ATOM	2242	O	LEU	A	289	26.526	47.300	63.525	1.00	22.82
	ATOM	2243	CB	LEU	A	289	27.236	49.616	65.156	1.00	15.28
	ATOM	2244	CG	LEU	A	289	27.741	50.434	66.350	1.00	20.44
20	ATOM	2245	CD1	LEU	A	289	26.607	51.363	66.782	1.00	18.76
	ATOM	2246	CD2	LEU	A	289	28.151	49.556	67.549	1.00	14.67
	ATOM	2247	N	SER	A	290	28.649	47.173	62.784	1.00	20.51
	ATOM	2248	CA	SER	A	290	28.298	46.332	61.655	1.00	22.41
	ATOM	2249	C	SER	A	290	27.734	44.950	62.011	1.00	24.28
25	ATOM	2250	O	SER	A	290	27.186	44.251	61.157	1.00	24.24
	ATOM	2251	CB	SER	A	290	29.457	46.263	60.676	1.00	22.09
	ATOM	2252	OG	SER	A	290	30.484	45.473	61.248	1.00	25.07
	ATOM	2253	N	ASN	A	291	27.873	44.530	63.261	1.00	19.37
	ATOM	2254	CA	ASN	A	291	27.317	43.249	63.591	1.00	18.43
30	ATOM	2255	C	ASN	A	291	25.826	43.236	63.256	1.00	17.33
	ATOM	2256	O	ASN	A	291	25.265	42.192	62.964	1.00	14.56
	ATOM	2257	CB	ASN	A	291	27.513	42.937	65.085	1.00	19.46
	ATOM	2258	CG	ASN	A	291	26.602	43.764	65.973	1.00	20.66
	ATOM	2259	OD1	ASN	A	291	26.798	44.984	66.108	1.00	17.05
35	ATOM	2260	ND2	ASN	A	291	25.549	43.128	66.515	1.00	16.48
	ATOM	2261	N	VAL	A	292	25.177	44.399	63.318	1.00	14.47
	ATOM	2262	CA	VAL	A	292	23.743	44.469	63.064	1.00	13.82
	ATOM	2263	C	VAL	A	292	23.510	44.099	61.629	1.00	21.19
	ATOM	2264	O	VAL	A	292	22.525	43.437	61.257	1.00	19.13
40	ATOM	2265	CB	VAL	A	292	23.176	45.855	63.358	1.00	16.20
	ATOM	2266	CG1	VAL	A	292	21.717	45.989	62.910	1.00	13.99
	ATOM	2267	CG2	VAL	A	292	23.375	46.193	64.832	1.00	14.21
	ATOM	2268	N	ILE	A	293	24.478	44.519	60.820	1.00	18.72
	ATOM	2269	CA	ILE	A	293	24.388	44.196	59.388	1.00	17.35
45	ATOM	2270	C	ILE	A	293	24.537	42.686	59.190	1.00	18.12
	ATOM	2271	O	ILE	A	293	23.706	42.048	58.535	1.00	20.68
	ATOM	2272	CB	ILE	A	293	25.347	45.002	58.504	1.00	21.90
	ATOM	2273	CG1	ILE	A	293	25.212	46.508	58.732	1.00	22.34
	ATOM	2274	CG2	ILE	A	293	25.106	44.651	57.036	1.00	24.91
50	ATOM	2275	CD1	ILE	A	293	23.875	47.084	58.267	1.00	17.25
	ATOM	2276	N	ALA	A	294	25.577	42.108	59.809	1.00	14.70
	ATOM	2277	CA	ALA	A	294	25.798	40.674	59.744	1.00	14.92
	ATOM	2278	C	ALA	A	294	24.525	39.915	60.144	1.00	19.80
	ATOM	2279	O	ALA	A	294	24.134	38.879	59.613	1.00	19.51
55	ATOM	2280	CB	ALA	A	294	26.963	40.320	60.692	1.00	11.24
	ATOM	2281	N	HIS	A	295	23.858	40.467	61.141	1.00	19.87
	ATOM	2282	CA	HIS	A	295	22.684	39.855	61.718	1.00	17.44
	ATOM	2283	C	HIS	A	295	21.564	39.788	60.725	1.00	15.33
	ATOM	2284	O	HIS	A	295	21.046	38.695	60.487	1.00	15.82
60	ATOM	2285	CB	HIS	A	295	22.243	40.560	63.038	1.00	16.85
	ATOM	2286	CG	HIS	A	295	20.982	40.016	63.661	1.00	14.90
	ATOM	2287	ND1	HIS	A	295	21.029	39.160	64.771	1.00	13.18
	ATOM	2288	CD2	HIS	A	295	19.681	40.220	63.307	1.00	14.18
	ATOM	2289	CE1	HIS	A	295	19.763	38.841	65.046	1.00	12.25
	ATOM	2290	NE2	HIS	A	295	18.926	39.479	64.206	1.00	13.88

	ATOM	2291	N	GLU	A	296	21.201	40.970	60.217	1.00	15.43
	ATOM	2292	CA	GLU	A	296	20.097	41.041	59.253	1.00	16.75
	ATOM	2293	C	GLU	A	296	20.374	40.223	58.006	1.00	19.55
5	ATOM	2294	O	GLU	A	296	19.470	39.579	57.471	1.00	19.03
	ATOM	2295	CB	GLU	A	296	19.579	42.442	58.926	1.00	18.78
	ATOM	2296	CG	GLU	A	296	19.319	43.284	60.187	1.00	15.45
	ATOM	2297	CD	GLU	A	296	18.430	42.683	61.258	1.00	15.87
	ATOM	2298	OE1	GLU	A	296	17.607	41.809	61.045	1.00	18.99
	ATOM	2299	OE2	GLU	A	296	18.590	43.282	62.423	1.00	16.74
10	ATOM	2300	N	ILE	A	297	21.622	40.231	57.561	1.00	14.69
	ATOM	2301	CA	ILE	A	297	22.017	39.411	56.420	1.00	15.42
	ATOM	2302	C	ILE	A	297	21.689	37.950	56.688	1.00	23.32
	ATOM	2303	O	ILE	A	297	21.127	37.216	55.852	1.00	20.13
	ATOM	2304	CB	ILE	A	297	23.518	39.491	56.229	1.00	17.39
15	ATOM	2305	CG1	ILE	A	297	23.800	40.762	55.435	1.00	15.89
	ATOM	2306	CG2	ILE	A	297	23.998	38.252	55.482	1.00	18.34
	ATOM	2307	CD1	ILE	A	297	25.286	41.106	55.363	1.00	18.27
	ATOM	2308	N	SER	A	298	22.043	37.525	57.903	1.00	19.20
20	ATOM	2309	CA	SER	A	298	21.828	36.138	58.327	1.00	18.22
	ATOM	2310	C	SER	A	298	20.386	35.663	58.269	1.00	17.45
	ATOM	2311	O	SER	A	298	20.138	34.479	58.073	1.00	18.23
	ATOM	2312	CB	SER	A	298	22.415	35.795	59.687	1.00	19.89
	ATOM	2313	OG	SER	A	298	23.812	35.938	59.627	1.00	20.48
25	ATOM	2314	N	HIS	A	299	19.458	36.589	58.479	1.00	14.42
	ATOM	2315	CA	HIS	A	299	18.038	36.284	58.435	1.00	14.65
	ATOM	2316	C	HIS	A	299	17.620	35.833	57.031	1.00	19.81
	ATOM	2317	O	HIS	A	299	16.610	35.136	56.857	1.00	22.28
	ATOM	2318	CB	HIS	A	299	17.235	37.515	58.891	1.00	16.87
30	ATOM	2319	CG	HIS	A	299	16.952	37.582	60.387	1.00	18.36
	ATOM	2320	ND1	HIS	A	299	16.386	36.512	61.090	1.00	15.19
	ATOM	2321	CD2	HIS	A	299	17.138	38.601	61.282	1.00	14.09
	ATOM	2322	CE1	HIS	A	299	16.235	36.894	62.356	1.00	13.44
	ATOM	2323	NE2	HIS	A	299	16.671	38.129	62.478	1.00	13.61
35	ATOM	2324	N	SER	A	300	18.416	36.216	56.025	1.00	16.24
	ATOM	2325	CA	SER	A	300	18.121	35.813	54.635	1.00	18.63
	ATOM	2326	C	SER	A	300	18.061	34.297	54.485	1.00	22.35
	ATOM	2327	O	SER	A	300	17.696	33.798	53.426	1.00	20.36
	ATOM	2328	CB	SER	A	300	19.092	36.353	53.595	1.00	18.87
40	ATOM	2329	OG	SER	A	300	19.383	37.715	53.804	1.00	19.75
	ATOM	2330	N	TRP	A	301	18.469	33.616	55.557	1.00	19.18
	ATOM	2331	CA	TRP	A	301	18.431	32.189	55.676	1.00	21.61
	ATOM	2332	C	TRP	A	301	17.572	31.826	56.889	1.00	23.56
	ATOM	2333	O	TRP	A	301	16.478	31.271	56.777	1.00	23.82
45	ATOM	2334	CB	TRP	A	301	19.815	31.539	55.793	1.00	23.04
	ATOM	2335	CG	TRP	A	301	20.658	31.686	54.552	1.00	25.35
	ATOM	2336	CD1	TRP	A	301	20.855	30.728	53.601	1.00	27.96
	ATOM	2337	CD2	TRP	A	301	21.462	32.798	54.143	1.00	23.60
	ATOM	2338	NE1	TRP	A	301	21.694	31.178	52.618	1.00	23.97
50	ATOM	2339	CE2	TRP	A	301	22.097	32.432	52.915	1.00	23.82
	ATOM	2340	CE3	TRP	A	301	21.688	34.053	54.689	1.00	22.79
	ATOM	2341	CZ2	TRP	A	301	22.939	33.272	52.216	1.00	22.46
	ATOM	2342	CZ3	TRP	A	301	22.534	34.892	54.000	1.00	24.82
	ATOM	2343	CH2	TRP	A	301	23.153	34.502	52.796	1.00	26.57
55	ATOM	2344	N	THR	A	302	18.080	32.149	58.074	1.00	19.87
	ATOM	2345	CA	THR	A	302	17.358	31.822	59.285	1.00	20.49
	ATOM	2346	C	THR	A	302	16.294	32.866	59.616	1.00	20.03
	ATOM	2347	O	THR	A	302	16.577	33.805	60.340	1.00	20.36
	ATOM	2348	CB	THR	A	302	18.309	31.537	60.479	1.00	15.81
60	ATOM	2349	OG1	THR	A	302	19.251	32.581	60.555	1.00	17.11
	ATOM	2350	CG2	THR	A	302	19.047	30.205	60.307	1.00	17.75
	ATOM	2351	N	GLY	A	303	15.080	32.699	59.111	1.00	15.84
	ATOM	2352	CA	GLY	A	303	14.020	33.646	59.409	1.00	13.98
	ATOM	2353	C	GLY	A	303	13.222	33.854	58.145	1.00	16.87
	ATOM	2354	O	GLY	A	303	12.009	33.604	58.075	1.00	18.37

	ATOM	2355	N	ASN	A	304	13.944	34.287	57.138	1.00	15.59
	ATOM	2356	CA	ASN	A	304	13.332	34.542	55.846	1.00	15.84
	ATOM	2357	C	ASN	A	304	13.151	33.277	55.002	1.00	23.11
5	ATOM	2358	O	ASN	A	304	12.133	33.172	54.319	1.00	20.28
	ATOM	2359	CB	ASN	A	304	14.075	35.643	55.069	1.00	14.22
	ATOM	2360	CG	ASN	A	304	14.069	36.963	55.803	1.00	28.04
	ATOM	2361	OD1	ASN	A	304	13.522	37.030	56.927	1.00	21.54
	ATOM	2362	ND2	ASN	A	304	14.660	37.988	55.159	1.00	15.69
10	ATOM	2363	N	LEU	A	305	14.106	32.310	55.061	1.00	22.32
	ATOM	2364	CA	LEU	A	305	13.970	31.036	54.310	1.00	21.16
	ATOM	2365	C	LEU	A	305	13.179	29.990	55.107	1.00	24.14
	ATOM	2366	O	LEU	A	305	12.183	29.414	54.657	1.00	20.26
	ATOM	2367	CB	LEU	A	305	15.312	30.421	53.877	1.00	20.64
	ATOM	2368	CG	LEU	A	305	15.667	30.763	52.443	1.00	25.36
15	ATOM	2369	CD1	LEU	A	305	17.031	30.163	52.135	1.00	21.74
	ATOM	2370	CD2	LEU	A	305	14.601	30.274	51.458	1.00	29.52
	ATOM	2371	N	VAL	A	306	13.690	29.750	56.320	1.00	22.11
	ATOM	2372	CA	VAL	A	306	13.087	28.894	57.326	1.00	22.78
20	ATOM	2373	C	VAL	A	306	12.593	29.863	58.387	1.00	20.95
	ATOM	2374	O	VAL	A	306	13.360	30.606	59.023	1.00	17.13
	ATOM	2375	CB	VAL	A	306	13.972	27.779	57.846	1.00	26.88
	ATOM	2376	CG1	VAL	A	306	15.369	28.300	58.012	1.00	30.17
	ATOM	2377	CG2	VAL	A	306	13.470	27.219	59.162	1.00	24.85
25	ATOM	2378	N	THR	A	307	11.268	29.875	58.487	1.00	19.71
	ATOM	2379	CA	THR	A	307	10.533	30.800	59.346	1.00	18.22
	ATOM	2380	C	THR	A	307	9.839	30.176	60.539	1.00	16.26
	ATOM	2381	O	THR	A	307	9.262	29.105	60.437	1.00	12.74
	ATOM	2382	CB	THR	A	307	9.463	31.476	58.441	1.00	21.45
30	ATOM	2383	OG1	THR	A	307	10.078	31.965	57.280	1.00	17.92
	ATOM	2384	CG2	THR	A	307	8.739	32.628	59.134	1.00	11.03
	ATOM	2385	N	ASN	A	308	9.840	30.870	61.679	1.00	13.09
	ATOM	2386	CA	ASN	A	308	9.111	30.345	62.816	1.00	14.06
	ATOM	2387	C	ASN	A	308	7.633	30.248	62.421	1.00	16.30
35	ATOM	2388	O	ASN	A	308	7.041	31.166	61.832	1.00	16.00
	ATOM	2389	CB	ASN	A	308	9.277	31.223	64.092	1.00	12.92
	ATOM	2390	CG	ASN	A	308	9.213	32.731	63.891	1.00	20.56
	ATOM	2391	OD1	ASN	A	308	9.877	33.505	64.593	1.00	19.56
	ATOM	2392	ND2	ASN	A	308	8.406	33.206	62.953	1.00	16.07
40	ATOM	2393	N	LYS	A	309	7.004	29.141	62.729	1.00	15.40
	ATOM	2394	CA	LYS	A	309	5.600	28.971	62.366	1.00	15.11
	ATOM	2395	C	LYS	A	309	4.607	29.891	63.122	1.00	19.89
	ATOM	2396	O	LYS	A	309	3.540	30.305	62.651	1.00	16.39
	ATOM	2397	CB	LYS	A	309	5.279	27.493	62.491	1.00	14.57
45	ATOM	2398	CG	LYS	A	309	3.863	27.208	62.020	1.00	19.79
	ATOM	2399	CD	LYS	A	309	3.513	25.738	62.103	1.00	30.87
	ATOM	2400	CE	LYS	A	309	3.169	25.135	60.754	1.00	82.87
	ATOM	2401	NZ	LYS	A	309	4.126	24.100	60.326	1.00	100.00
	ATOM	2402	N	THR	A	310	4.930	30.182	64.367	1.00	15.49
50	ATOM	2403	CA	THR	A	310	4.165	31.100	65.196	1.00	14.00
	ATOM	2404	C	THR	A	310	5.196	31.851	66.038	1.00	21.33
	ATOM	2405	O	THR	A	310	6.333	31.382	66.204	1.00	17.08
	ATOM	2406	CB	THR	A	310	3.158	30.422	66.130	1.00	23.18
	ATOM	2407	OG1	THR	A	310	3.843	29.888	67.272	1.00	17.70
55	ATOM	2408	CG2	THR	A	310	2.354	29.366	65.357	1.00	24.41
	ATOM	2409	N	TRP	A	311	4.797	32.998	66.591	1.00	16.85
	ATOM	2410	CA	TRP	A	311	5.703	33.779	67.408	1.00	13.14
	ATOM	2411	C	TRP	A	311	6.121	33.074	68.703	1.00	14.85
	ATOM	2412	O	TRP	A	311	7.023	33.499	69.408	1.00	16.76
60	ATOM	2413	CB	TRP	A	311	5.152	35.196	67.620	1.00	11.46
	ATOM	2414	CG	TRP	A	311	4.878	35.825	66.301	1.00	12.77
	ATOM	2415	CD1	TRP	A	311	3.661	36.134	65.773	1.00	15.35
	ATOM	2416	CD2	TRP	A	311	5.867	36.192	65.320	1.00	14.76
	ATOM	2417	NE1	TRP	A	311	3.809	36.710	64.528	1.00	15.45
	ATOM	2418	CE2	TRP	A	311	5.167	36.734	64.217	1.00	16.76

	ATOM	2419	CE3	TRP	A	311	7.265	36.090	65.283	1.00	15.71
	ATOM	2420	CZ2	TRP	A	311	5.851	37.203	63.090	1.00	13.67
	ATOM	2421	CZ3	TRP	A	311	7.933	36.555	64.180	1.00	16.49
5	ATOM	2422	CH2	TRP	A	311	7.230	37.101	63.091	1.00	17.12
	ATOM	2423	N	ASP	A	312	5.490	31.969	69.043	1.00	13.30
	ATOM	2424	CA	ASP	A	312	5.895	31.246	70.222	1.00	16.21
	ATOM	2425	C	ASP	A	312	7.274	30.591	70.003	1.00	17.53
	ATOM	2426	O	ASP	A	312	8.008	30.260	70.927	1.00	15.45
10	ATOM	2427	CB	ASP	A	312	4.866	30.143	70.538	1.00	17.39
	ATOM	2428	CG	ASP	A	312	3.597	30.710	71.126	1.00	16.83
	ATOM	2429	OD1	ASP	A	312	3.467	31.852	71.479	1.00	19.29
	ATOM	2430	OD2	ASP	A	312	2.658	29.837	71.234	1.00	22.09
	ATOM	2431	N	HIS	A	313	7.628	30.392	68.748	1.00	13.40
	ATOM	2432	CA	HIS	A	313	8.881	29.767	68.392	1.00	11.86
15	ATOM	2433	C	HIS	A	313	9.855	30.779	67.820	1.00	14.50
	ATOM	2434	O	HIS	A	313	10.768	30.463	67.080	1.00	17.00
	ATOM	2435	CB	HIS	A	313	8.547	28.724	67.308	1.00	14.08
	ATOM	2436	CG	HIS	A	313	7.649	27.679	67.892	1.00	16.09
20	ATOM	2437	ND1	HIS	A	313	8.144	26.653	68.689	1.00	15.85
	ATOM	2438	CD2	HIS	A	313	6.287	27.557	67.842	1.00	13.64
	ATOM	2439	CE1	HIS	A	313	7.097	25.922	69.096	1.00	14.23
	ATOM	2440	NE2	HIS	A	313	5.985	26.458	68.615	1.00	13.52
	ATOM	2441	N	PHE	A	314	9.654	32.022	68.178	1.00	14.17
25	ATOM	2442	CA	PHE	A	314	10.435	33.140	67.723	1.00	13.18
	ATOM	2443	C	PHE	A	314	11.910	32.890	67.944	1.00	13.98
	ATOM	2444	O	PHE	A	314	12.775	33.355	67.210	1.00	13.88
	ATOM	2445	CB	PHE	A	314	9.968	34.367	68.516	1.00	11.94
	ATOM	2446	CG	PHE	A	314	10.644	35.668	68.130	1.00	16.32
30	ATOM	2447	CD1	PHE	A	314	10.734	36.090	66.802	1.00	15.58
	ATOM	2448	CD2	PHE	A	314	11.163	36.510	69.121	1.00	16.22
	ATOM	2449	CE1	PHE	A	314	11.326	37.314	66.482	1.00	15.39
	ATOM	2450	CE2	PHE	A	314	11.779	37.727	68.826	1.00	17.56
	ATOM	2451	CZ	PHE	A	314	11.857	38.128	67.490	1.00	16.63
35	ATOM	2452	N	TRP	A	315	12.244	32.131	68.950	1.00	11.22
	ATOM	2453	CA	TRP	A	315	13.701	31.921	69.150	1.00	8.85
	ATOM	2454	C	TRP	A	315	14.386	31.236	67.968	1.00	16.46
	ATOM	2455	O	TRP	A	315	15.577	31.416	67.735	1.00	17.37
	ATOM	2456	CB	TRP	A	315	13.968	31.130	70.425	1.00	7.05
40	ATOM	2457	CG	TRP	A	315	13.737	29.668	70.223	1.00	11.50
	ATOM	2458	CD1	TRP	A	315	12.552	28.982	70.289	1.00	14.09
	ATOM	2459	CD2	TRP	A	315	14.755	28.696	69.909	1.00	14.05
	ATOM	2460	NE1	TRP	A	315	12.757	27.639	70.053	1.00	14.75
	ATOM	2461	CE2	TRP	A	315	14.112	27.426	69.829	1.00	19.21
45	ATOM	2462	CE3	TRP	A	315	16.135	28.783	69.668	1.00	14.13
	ATOM	2463	CZ2	TRP	A	315	14.854	26.239	69.553	1.00	18.59
	ATOM	2464	CZ3	TRP	A	315	16.848	27.603	69.408	1.00	15.80
	ATOM	2465	CH2	TRP	A	315	16.225	26.341	69.370	1.00	15.36
	ATOM	2466	N	LEU	A	316	13.665	30.427	67.199	1.00	15.45
50	ATOM	2467	CA	LEU	A	316	14.275	29.786	66.039	1.00	15.59
	ATOM	2468	C	LEU	A	316	14.806	30.877	65.102	1.00	19.42
	ATOM	2469	O	LEU	A	316	15.912	30.785	64.558	1.00	18.71
	ATOM	2470	CB	LEU	A	316	13.187	28.974	65.268	1.00	16.46
	ATOM	2471	CG	LEU	A	316	12.679	27.700	65.971	1.00	17.87
55	ATOM	2472	CD1	LEU	A	316	11.619	27.020	65.096	1.00	15.05
	ATOM	2473	CD2	LEU	A	316	13.812	26.696	66.232	1.00	16.57
	ATOM	2474	N	ASN	A	317	14.004	31.928	64.892	1.00	12.40
	ATOM	2475	CA	ASN	A	317	14.421	33.011	64.034	1.00	12.09
	ATOM	2476	C	ASN	A	317	15.639	33.720	64.594	1.00	19.91
60	ATOM	2477	O	ASN	A	317	16.680	33.810	63.968	1.00	20.50
	ATOM	2478	CB	ASN	A	317	13.304	34.073	63.870	1.00	18.56
	ATOM	2479	CG	ASN	A	317	12.331	33.798	62.729	1.00	19.35
	ATOM	2480	OD1	ASN	A	317	12.028	32.647	62.381	1.00	15.37
	ATOM	2481	ND2	ASN	A	317	11.761	34.856	62.180	1.00	15.57
	ATOM	2482	N	GLU	A	318	15.486	34.281	65.789	1.00	15.19

	ATOM	2483	CA	GLU	A	318	16.522	35.073	66.433	1.00	11.97
	ATOM	2484	C	GLU	A	318	17.754	34.318	66.948	1.00	14.90
	ATOM	2485	O	GLU	A	318	18.861	34.762	66.724	1.00	14.03
5	ATOM	2486	CB	GLU	A	318	15.894	36.023	67.500	1.00	9.48
	ATOM	2487	CG	GLU	A	318	14.862	36.983	66.862	1.00	8.24
	ATOM	2488	CD	GLU	A	318	15.409	37.898	65.776	1.00	14.75
	ATOM	2489	OE1	GLU	A	318	16.597	38.104	65.536	1.00	13.03
	ATOM	2490	OE2	GLU	A	318	14.468	38.428	65.046	1.00	13.56
10	ATOM	2491	N	GLY	A	319	17.586	33.196	67.672	1.00	11.86
	ATOM	2492	CA	GLY	A	319	18.740	32.468	68.173	1.00	11.63
	ATOM	2493	C	GLY	A	319	19.655	31.995	67.047	1.00	16.47
	ATOM	2494	O	GLY	A	319	20.862	32.192	67.142	1.00	16.49
	ATOM	2495	N	HIS	A	320	19.118	31.374	65.991	1.00	13.41
15	ATOM	2496	CA	HIS	A	320	19.963	30.915	64.885	1.00	13.77
	ATOM	2497	C	HIS	A	320	20.671	32.086	64.195	1.00	14.09
	ATOM	2498	O	HIS	A	320	21.808	32.000	63.739	1.00	17.34
	ATOM	2499	CB	HIS	A	320	19.148	30.128	63.832	1.00	12.48
	ATOM	2500	CG	HIS	A	320	18.795	28.772	64.335	1.00	16.54
20	ATOM	2501	ND1	HIS	A	320	17.663	28.555	65.111	1.00	18.54
	ATOM	2502	CD2	HIS	A	320	19.459	27.585	64.203	1.00	19.71
	ATOM	2503	CE1	HIS	A	320	17.644	27.262	65.413	1.00	17.18
	ATOM	2504	NE2	HIS	A	320	18.699	26.647	64.875	1.00	17.83
	ATOM	2505	N	THR	A	321	19.952	33.190	64.090	1.00	12.05
25	ATOM	2506	CA	THR	A	321	20.492	34.376	63.465	1.00	15.46
	ATOM	2507	C	THR	A	321	21.669	34.999	64.244	1.00	20.32
	ATOM	2508	O	THR	A	321	22.678	35.421	63.665	1.00	17.11
	ATOM	2509	CB	THR	A	321	19.406	35.394	63.078	1.00	19.10
	ATOM	2510	OG1	THR	A	321	18.517	34.726	62.203	1.00	14.48
30	ATOM	2511	CG2	THR	A	321	20.089	36.593	62.382	1.00	12.29
	ATOM	2512	N	VAL	A	322	21.541	35.047	65.573	1.00	13.35
	ATOM	2513	CA	VAL	A	322	22.615	35.545	66.391	1.00	12.65
	ATOM	2514	C	VAL	A	322	23.795	34.588	66.234	1.00	16.03
	ATOM	2515	O	VAL	A	322	24.959	34.956	66.195	1.00	16.36
35	ATOM	2516	CB	VAL	A	322	22.149	35.593	67.838	1.00	12.95
	ATOM	2517	CG1	VAL	A	322	23.340	35.917	68.744	1.00	12.06
	ATOM	2518	CG2	VAL	A	322	21.070	36.690	67.972	1.00	11.64
	ATOM	2519	N	TYR	A	323	23.484	33.319	66.107	1.00	12.22
	ATOM	2520	CA	TYR	A	323	24.543	32.350	65.974	1.00	10.51
40	ATOM	2521	C	TYR	A	323	25.297	32.597	64.670	1.00	15.55
	ATOM	2522	O	TYR	A	323	26.534	32.680	64.604	1.00	15.83
	ATOM	2523	CB	TYR	A	323	23.955	30.941	66.161	1.00	12.86
	ATOM	2524	CG	TYR	A	323	25.002	29.841	66.078	1.00	16.99
	ATOM	2525	CD1	TYR	A	323	25.666	29.350	67.208	1.00	18.18
45	ATOM	2526	CD2	TYR	A	323	25.323	29.291	64.834	1.00	21.03
	ATOM	2527	CE1	TYR	A	323	26.610	28.319	67.112	1.00	15.16
	ATOM	2528	CE2	TYR	A	323	26.266	28.268	64.707	1.00	20.54
	ATOM	2529	CZ	TYR	A	323	26.902	27.789	65.853	1.00	19.73
	ATOM	2530	OH	TYR	A	323	27.875	26.842	65.715	1.00	18.13
50	ATOM	2531	N	LEU	A	324	24.547	32.768	63.593	1.00	12.82
	ATOM	2532	CA	LEU	A	324	25.216	33.034	62.335	1.00	15.52
	ATOM	2533	C	LEU	A	324	26.008	34.346	62.366	1.00	22.74
	ATOM	2534	O	LEU	A	324	27.160	34.471	61.935	1.00	22.72
	ATOM	2535	CB	LEU	A	324	24.225	33.012	61.148	1.00	14.70
55	ATOM	2536	CG	LEU	A	324	23.724	31.586	60.863	1.00	18.25
	ATOM	2537	CD1	LEU	A	324	22.608	31.574	59.808	1.00	17.22
	ATOM	2538	CD2	LEU	A	324	24.905	30.704	60.448	1.00	23.48
	ATOM	2539	N	GLU	A	325	25.332	35.361	62.859	1.00	15.47
	ATOM	2540	CA	GLU	A	325	25.885	36.694	63.007	1.00	13.65
60	ATOM	2541	C	GLU	A	325	27.246	36.636	63.628	1.00	16.34
	ATOM	2542	O	GLU	A	325	28.168	37.246	63.123	1.00	15.36
	ATOM	2543	CB	GLU	A	325	24.988	37.464	63.996	1.00	16.31
	ATOM	2544	CG	GLU	A	325	25.472	38.890	64.363	1.00	20.54
	ATOM	2545	CD	GLU	A	325	24.743	39.395	65.599	1.00	30.10
	ATOM	2546	OE1	GLU	A	325	23.641	39.008	65.966	1.00	18.40

	ATOM	2547	OE2	GLU	A	325	25.421	40.260	66.301	1.00	21.65
	ATOM	2548	N	ARG	A	326	27.329	35.892	64.727	1.00	15.29
	ATOM	2549	CA	ARG	A	326	28.565	35.781	65.469	1.00	14.94
5	ATOM	2550	C	ARG	A	326	29.651	35.048	64.718	1.00	18.22
	ATOM	2551	O	ARG	A	326	30.828	35.316	64.914	1.00	16.55
	ATOM	2552	CB	ARG	A	326	28.367	35.352	66.915	1.00	15.15
	ATOM	2553	CG	ARG	A	326	27.548	36.410	67.619	1.00	11.35
	ATOM	2554	CD	ARG	A	326	27.266	36.102	69.095	1.00	11.37
10	ATOM	2555	NE	ARG	A	326	26.619	37.266	69.724	1.00	14.76
	ATOM	2556	CZ	ARG	A	326	25.805	37.229	70.769	1.00	16.13
	ATOM	2557	NH1	ARG	A	326	25.523	36.107	71.419	1.00	8.40
	ATOM	2558	NH2	ARG	A	326	25.262	38.379	71.166	1.00	16.43
	ATOM	2559	N	HIS	A	327	29.233	34.146	63.843	1.00	17.38
15	ATOM	2560	CA	HIS	A	327	30.174	33.400	63.018	1.00	19.62
	ATOM	2561	C	HIS	A	327	30.700	34.341	61.938	1.00	18.88
	ATOM	2562	O	HIS	A	327	31.866	34.359	61.573	1.00	19.41
	ATOM	2563	CB	HIS	A	327	29.485	32.146	62.407	1.00	17.97
	ATOM	2564	CG	HIS	A	327	29.698	30.875	63.188	1.00	19.10
20	ATOM	2565	ND1	HIS	A	327	30.973	30.414	63.524	1.00	20.08
	ATOM	2566	CD2	HIS	A	327	28.792	29.954	63.642	1.00	18.16
	ATOM	2567	CE1	HIS	A	327	30.824	29.266	64.188	1.00	18.80
	ATOM	2568	NE2	HIS	A	327	29.519	28.976	64.284	1.00	19.69
	ATOM	2569	N	ILE	A	328	29.827	35.168	61.391	1.00	14.60
25	ATOM	2570	CA	ILE	A	328	30.304	36.097	60.362	1.00	15.76
	ATOM	2571	C	ILE	A	328	31.423	36.971	60.935	1.00	28.02
	ATOM	2572	O	ILE	A	328	32.504	37.099	60.355	1.00	26.14
	ATOM	2573	CB	ILE	A	328	29.145	36.946	59.788	1.00	16.17
	ATOM	2574	CG1	ILE	A	328	28.220	36.087	58.911	1.00	19.03
30	ATOM	2575	CG2	ILE	A	328	29.642	38.126	58.968	1.00	18.66
	ATOM	2576	CD1	ILE	A	328	26.852	36.718	58.595	1.00	14.57
	ATOM	2577	N	CYS	A	329	31.139	37.562	62.116	1.00	21.94
	ATOM	2578	CA	CYS	A	329	32.040	38.433	62.826	1.00	19.84
	ATOM	2579	C	CYS	A	329	33.306	37.718	63.233	1.00	20.23
35	ATOM	2580	O	CYS	A	329	34.391	38.278	63.154	1.00	21.18
	ATOM	2581	CB	CYS	A	329	31.309	39.092	64.007	1.00	26.30
	ATOM	2582	SG	CYS	A	329	30.024	40.241	63.391	1.00	33.21
	ATOM	2583	N	GLY	A	330	33.169	36.480	63.655	1.00	17.16
	ATOM	2584	CA	GLY	A	330	34.314	35.683	64.039	1.00	17.88
40	ATOM	2585	C	GLY	A	330	35.160	35.471	62.786	1.00	23.13
	ATOM	2586	O	GLY	A	330	36.381	35.479	62.773	1.00	19.20
	ATOM	2587	N	ARG	A	331	34.494	35.297	61.673	1.00	23.41
	ATOM	2588	CA	ARG	A	331	35.238	35.107	60.454	1.00	25.42
	ATOM	2589	C	ARG	A	331	35.949	36.374	60.013	1.00	27.08
	ATOM	2590	O	ARG	A	331	37.066	36.354	59.519	1.00	30.59
45	ATOM	2591	CB	ARG	A	331	34.323	34.671	59.328	1.00	29.56
	ATOM	2592	CG	ARG	A	331	34.103	33.178	59.357	1.00	42.38
	ATOM	2593	CD	ARG	A	331	34.542	32.499	58.075	1.00	45.62
	ATOM	2594	NE	ARG	A	331	33.755	31.307	57.851	1.00	59.13
50	ATOM	2595	CZ	ARG	A	331	33.469	30.431	58.821	1.00	84.69
	ATOM	2596	NH1	ARG	A	331	33.882	30.552	60.089	1.00	53.45
	ATOM	2597	NH2	ARG	A	331	32.744	29.367	58.501	1.00	89.38
	ATOM	2598	N	LEU	A	332	35.309	37.506	60.144	1.00	18.29
	ATOM	2599	CA	LEU	A	332	35.960	38.699	59.689	1.00	18.18
55	ATOM	2600	C	LEU	A	332	36.972	39.217	60.683	1.00	27.48
	ATOM	2601	O	LEU	A	332	37.943	39.809	60.248	1.00	26.78
	ATOM	2602	CB	LEU	A	332	34.892	39.790	59.583	1.00	20.70
	ATOM	2603	CG	LEU	A	332	34.604	40.445	58.237	1.00	29.09
	ATOM	2604	CD1	LEU	A	332	34.898	39.569	57.036	1.00	26.07
60	ATOM	2605	CD2	LEU	A	332	33.138	40.831	58.200	1.00	29.25
	ATOM	2606	N	PHE	A	333	36.721	39.049	61.995	1.00	21.64
	ATOM	2607	CA	PHE	A	333	37.570	39.583	63.050	1.00	20.45
	ATOM	2608	C	PHE	A	333	38.248	38.620	63.966	1.00	21.67
	ATOM	2609	O	PHE	A	333	39.050	39.031	64.794	1.00	27.38
	ATOM	2610	CB	PHE	A	333	36.882	40.672	63.907	1.00	23.81



	ATOM	2611	CG	PHE	A	333	36.150	41.625	62.994	1.00	25.90
	ATOM	2612	CD1	PHE	A	333	36.871	42.470	62.151	1.00	27.97
	ATOM	2613	CD2	PHE	A	333	34.757	41.624	62.931	1.00	27.62
5	ATOM	2614	CE1	PHE	A	333	36.198	43.314	61.269	1.00	30.62
	ATOM	2615	CE2	PHE	A	333	34.069	42.462	62.053	1.00	32.30
	ATOM	2616	CZ	PHE	A	333	34.804	43.309	61.221	1.00	30.11
	ATOM	2617	N	GLY	A	334	37.950	37.362	63.877	1.00	17.26
	ATOM	2618	CA	GLY	A	334	38.653	36.481	64.791	1.00	18.41
10	ATOM	2619	C	GLY	A	334	37.735	35.732	65.735	1.00	23.30
	ATOM	2620	O	GLY	A	334	36.758	36.276	66.244	1.00	21.87
	ATOM	2621	N	GLU	A	335	38.100	34.471	65.947	1.00	18.34
	ATOM	2622	CA	GLU	A	335	37.377	33.558	66.821	1.00	20.82
	ATOM	2623	C	GLU	A	335	37.301	34.102	68.238	1.00	20.81
15	ATOM	2624	O	GLU	A	335	36.341	33.888	68.975	1.00	20.60
	ATOM	2625	CB	GLU	A	335	38.057	32.183	66.811	1.00	19.30
	ATOM	2626	CG	GLU	A	335	37.366	31.179	67.751	1.00	22.22
	ATOM	2627	CD	GLU	A	335	35.963	30.786	67.350	1.00	22.99
	ATOM	2628	OE1	GLU	A	335	35.278	31.338	66.513	1.00	26.34
	ATOM	2629	OE2	GLU	A	335	35.554	29.762	68.020	1.00	20.74
20	ATOM	2630	N	LYS	A	336	38.327	34.845	68.615	1.00	17.24
	ATOM	2631	CA	LYS	A	336	38.375	35.413	69.947	1.00	16.83
	ATOM	2632	C	LYS	A	336	37.316	36.470	70.050	1.00	17.51
	ATOM	2633	O	LYS	A	336	36.732	36.668	71.110	1.00	17.26
25	ATOM	2634	CB	LYS	A	336	39.735	36.002	70.264	1.00	16.58
	ATOM	2635	CG	LYS	A	336	40.725	34.912	70.659	1.00	20.77
	ATOM	2636	CD	LYS	A	336	42.162	35.378	70.871	1.00	32.80
	ATOM	2637	CE	LYS	A	336	43.184	34.329	70.432	1.00	66.91
	ATOM	2638	NZ	LYS	A	336	44.484	34.418	71.112	1.00	80.02
30	ATOM	2639	N	PHE	A	337	37.094	37.146	68.927	1.00	11.07
	ATOM	2640	CA	PHE	A	337	36.075	38.183	68.893	1.00	13.51
	ATOM	2641	C	PHE	A	337	34.691	37.519	68.993	1.00	18.73
	ATOM	2642	O	PHE	A	337	33.797	37.992	69.659	1.00	15.94
	ATOM	2643	CB	PHE	A	337	36.113	38.963	67.569	1.00	14.14
35	ATOM	2644	CG	PHE	A	337	35.241	40.194	67.632	1.00	19.04
	ATOM	2645	CD1	PHE	A	337	35.266	41.054	68.734	1.00	23.19
	ATOM	2646	CD2	PHE	A	337	34.406	40.562	66.571	1.00	25.81
	ATOM	2647	CE1	PHE	A	337	34.473	42.209	68.789	1.00	26.28
	ATOM	2648	CE2	PHE	A	337	33.634	41.727	66.594	1.00	26.38
40	ATOM	2649	CZ	PHE	A	337	33.645	42.557	67.718	1.00	25.06
	ATOM	2650	N	ARG	A	338	34.501	36.384	68.327	1.00	16.12
	ATOM	2651	CA	ARG	A	338	33.239	35.665	68.384	1.00	15.03
	ATOM	2652	C	ARG	A	338	32.936	35.314	69.804	1.00	18.17
	ATOM	2653	O	ARG	A	338	31.806	35.480	70.240	1.00	18.12
45	ATOM	2654	CB	ARG	A	338	33.294	34.359	67.617	1.00	11.66
	ATOM	2655	CG	ARG	A	338	31.961	33.629	67.660	1.00	12.35
	ATOM	2656	CD	ARG	A	338	31.899	32.552	66.583	1.00	17.19
	ATOM	2657	NE	ARG	A	338	32.554	31.328	67.051	1.00	17.53
	ATOM	2658	CZ	ARG	A	338	31.981	30.175	67.417	1.00	23.05
50	ATOM	2659	NH1	ARG	A	338	30.670	29.953	67.424	1.00	16.55
	ATOM	2660	NH2	ARG	A	338	32.772	29.179	67.803	1.00	12.25
	ATOM	2661	N	HIS	A	339	33.956	34.816	70.504	1.00	12.76
	ATOM	2662	CA	HIS	A	339	33.772	34.426	71.888	1.00	13.75
	ATOM	2663	C	HIS	A	339	33.408	35.617	72.756	1.00	18.91
55	ATOM	2664	O	HIS	A	339	32.587	35.520	73.655	1.00	12.72
	ATOM	2665	CB	HIS	A	339	35.006	33.697	72.480	1.00	14.46
	ATOM	2666	CG	HIS	A	339	34.975	32.250	72.096	1.00	14.96
	ATOM	2667	ND1	HIS	A	339	34.952	31.249	73.046	1.00	15.14
	ATOM	2668	CD2	HIS	A	339	34.943	31.693	70.855	1.00	15.02
60	ATOM	2669	CE1	HIS	A	339	34.914	30.101	72.405	1.00	12.56
	ATOM	2670	NE2	HIS	A	339	34.895	30.343	71.097	1.00	15.39
	ATOM	2671	N	PHE	A	340	34.066	36.739	72.487	1.00	16.25
	ATOM	2672	CA	PHE	A	340	33.832	37.961	73.250	1.00	13.96
	ATOM	2673	C	PHE	A	340	32.361	38.397	73.164	1.00	16.27
	ATOM	2674	O	PHE	A	340	31.700	38.760	74.158	1.00	13.82

	ATOM	2675	CB	PHE	A	340	34.823	39.032	72.753	1.00	11.82
	ATOM	2676	CG	PHE	A	340	34.525	40.414	73.286	1.00	14.06
	ATOM	2677	CD1	PHE	A	340	35.064	40.835	74.503	1.00	13.72
	ATOM	2678	CD2	PHE	A	340	33.703	41.284	72.566	1.00	16.13
5	ATOM	2679	CE1	PHE	A	340	34.753	42.091	75.016	1.00	8.85
	ATOM	2680	CE2	PHE	A	340	33.401	42.560	73.044	1.00	16.77
	ATOM	2681	CZ	PHE	A	340	33.937	42.946	74.273	1.00	11.27
	ATOM	2682	N	ASN	A	341	31.871	38.363	71.925	1.00	13.64
	ATOM	2683	CA	ASN	A	341	30.507	38.730	71.637	1.00	15.75
10	ATOM	2684	C	ASN	A	341	29.529	37.762	72.257	1.00	18.72
	ATOM	2685	O	ASN	A	341	28.446	38.129	72.717	1.00	19.01
	ATOM	2686	CB	ASN	A	341	30.256	38.827	70.136	1.00	15.22
	ATOM	2687	CG	ASN	A	341	30.886	40.099	69.603	1.00	29.77
	ATOM	2688	OD1	ASN	A	341	31.197	40.172	68.416	1.00	60.07
15	ATOM	2689	ND2	ASN	A	341	30.995	41.133	70.437	1.00	17.13
	ATOM	2690	N	ALA	A	342	29.908	36.511	72.229	1.00	11.92
	ATOM	2691	CA	ALA	A	342	29.065	35.487	72.804	1.00	12.85
	ATOM	2692	C	ALA	A	342	28.923	35.676	74.314	1.00	15.91
	ATOM	2693	O	ALA	A	342	27.832	35.578	74.884	1.00	14.84
20	ATOM	2694	CB	ALA	A	342	29.614	34.099	72.492	1.00	12.26
	ATOM	2695	N	LEU	A	343	30.043	35.937	74.986	1.00	13.24
	ATOM	2696	CA	LEU	A	343	30.030	36.113	76.417	1.00	10.68
	ATOM	2697	C	LEU	A	343	29.264	37.372	76.748	1.00	14.78
	ATOM	2698	O	LEU	A	343	28.551	37.413	77.737	1.00	18.40
25	ATOM	2699	CB	LEU	A	343	31.459	36.148	77.006	1.00	9.64
	ATOM	2700	CG	LEU	A	343	31.476	36.187	78.528	1.00	14.79
	ATOM	2701	CD1	LEU	A	343	30.680	35.010	79.105	1.00	11.42
	ATOM	2702	CD2	LEU	A	343	32.931	36.014	78.992	1.00	14.08
	ATOM	2703	N	GLY	A	344	29.420	38.440	75.953	1.00	10.89
30	ATOM	2704	CA	GLY	A	344	28.648	39.658	76.253	1.00	10.09
	ATOM	2705	C	GLY	A	344	27.124	39.384	76.115	1.00	17.65
	ATOM	2706	O	GLY	A	344	26.321	39.969	76.838	1.00	17.82
	ATOM	2707	N	GLY	A	345	26.706	38.516	75.167	1.00	13.70
	ATOM	2708	CA	GLY	A	345	25.298	38.162	74.927	1.00	8.39
35	ATOM	2709	C	GLY	A	345	24.753	37.490	76.190	1.00	13.97
	ATOM	2710	O	GLY	A	345	23.611	37.741	76.620	1.00	12.61
	ATOM	2711	N	TRP	A	346	25.592	36.634	76.814	1.00	13.97
	ATOM	2712	CA	TRP	A	346	25.230	35.929	78.059	1.00	9.72
40	ATOM	2713	C	TRP	A	346	24.922	37.005	79.095	1.00	15.65
	ATOM	2714	O	TRP	A	346	23.975	36.947	79.906	1.00	12.16
	ATOM	2715	CB	TRP	A	346	26.367	34.981	78.555	1.00	8.14
	ATOM	2716	CG	TRP	A	346	25.958	34.282	79.835	1.00	10.60
	ATOM	2717	CD1	TRP	A	346	26.106	34.787	81.102	1.00	12.86
	ATOM	2718	CD2	TRP	A	346	25.267	33.009	80.004	1.00	11.80
45	ATOM	2719	NE1	TRP	A	346	25.585	33.926	82.032	1.00	13.12
	ATOM	2720	CE2	TRP	A	346	25.065	32.806	81.394	1.00	16.02
	ATOM	2721	CE3	TRP	A	346	24.806	32.001	79.140	1.00	14.58
	ATOM	2722	CZ2	TRP	A	346	24.431	31.641	81.909	1.00	14.92
	ATOM	2723	CZ3	TRP	A	346	24.188	30.860	79.646	1.00	14.14
50	ATOM	2724	CH2	TRP	A	346	23.982	30.685	81.027	1.00	14.57
	ATOM	2725	N	GLY	A	347	25.728	38.064	79.012	1.00	10.25
	ATOM	2726	CA	GLY	A	347	25.516	39.160	79.953	1.00	11.27
	ATOM	2727	C	GLY	A	347	24.171	39.838	79.758	1.00	11.91
	ATOM	2728	O	GLY	A	347	23.531	40.217	80.724	1.00	12.39
55	ATOM	2729	N	GLU	A	348	23.789	40.049	78.500	1.00	13.80
	ATOM	2730	CA	GLU	A	348	22.502	40.674	78.185	1.00	11.62
	ATOM	2731	C	GLU	A	348	21.399	39.762	78.682	1.00	16.45
	ATOM	2732	O	GLU	A	348	20.381	40.234	79.211	1.00	14.72
	ATOM	2733	CB	GLU	A	348	22.401	40.992	76.683	1.00	11.49
60	ATOM	2734	CG	GLU	A	348	23.434	42.056	76.317	1.00	12.72
	ATOM	2735	CD	GLU	A	348	23.027	43.349	76.970	1.00	29.34
	ATOM	2736	OE1	GLU	A	348	21.910	43.796	76.855	1.00	45.66
	ATOM	2737	OE2	GLU	A	348	23.939	43.872	77.746	1.00	21.11
	ATOM	2738	N	LEU	A	349	21.648	38.442	78.531	1.00	11.46

	ATOM	2739	CA	LEU A 349	20.686	37.471	79.030	1.00	12.33
	ATOM	2740	C	LEU A 349	20.538	37.591	80.565	1.00	17.72
	ATOM	2741	O	LEU A 349	19.438	37.548	81.111	1.00	13.76
5	ATOM	2742	CB	LEU A 349	21.011	36.014	78.591	1.00	12.25
	ATOM	2743	CG	LEU A 349	20.011	34.943	79.079	1.00	13.43
	ATOM	2744	CD1	LEU A 349	18.665	35.153	78.379	1.00	9.66
	ATOM	2745	CD2	LEU A 349	20.532	33.546	78.712	1.00	13.00
	ATOM	2746	N	GLN A 350	21.631	37.719	81.301	1.00	12.48
10	ATOM	2747	CA	GLN A 350	21.524	37.864	82.738	1.00	8.81
	ATOM	2748	C	GLN A 350	20.685	39.085	83.083	1.00	15.50
	ATOM	2749	O	GLN A 350	19.876	39.083	84.015	1.00	18.35
	ATOM	2750	CB	GLN A 350	22.929	38.135	83.300	1.00	12.42
	ATOM	2751	CG	GLN A 350	23.810	36.867	83.324	1.00	13.26
	ATOM	2752	CD	GLN A 350	25.238	37.162	83.789	1.00	25.25
15	ATOM	2753	OE1	GLN A 350	25.856	36.393	84.540	1.00	24.47
	ATOM	2754	NE2	GLN A 350	25.770	38.303	83.383	1.00	17.04
	ATOM	2755	N	ASN A 351	20.856	40.155	82.316	1.00	15.07
	ATOM	2756	CA	ASN A 351	20.111	41.382	82.543	1.00	13.40
20	ATOM	2757	C	ASN A 351	18.641	41.166	82.291	1.00	15.52
	ATOM	2758	O	ASN A 351	17.800	41.602	83.072	1.00	14.93
	ATOM	2759	CB	ASN A 351	20.581	42.551	81.657	1.00	15.98
	ATOM	2760	CG	ASN A 351	21.996	42.987	81.972	1.00	10.13
	ATOM	2761	OD1	ASN A 351	22.615	42.513	82.928	1.00	16.52
	ATOM	2762	ND2	ASN A 351	22.563	43.766	81.065	1.00	12.55
25	ATOM	2763	N	SER A 352	18.310	40.514	81.187	1.00	11.92
	ATOM	2764	CA	SER A 352	16.888	40.272	80.893	1.00	12.49
	ATOM	2765	C	SER A 352	16.167	39.437	81.959	1.00	16.90
	ATOM	2766	O	SER A 352	15.015	39.650	82.332	1.00	15.33
30	ATOM	2767	CB	SER A 352	16.772	39.519	79.567	1.00	17.32
	ATOM	2768	OG	SER A 352	16.959	40.434	78.526	1.00	24.23
	ATOM	2769	N	VAL A 353	16.861	38.419	82.432	1.00	14.57
	ATOM	2770	CA	VAL A 353	16.321	37.538	83.446	1.00	13.92
	ATOM	2771	C	VAL A 353	16.163	38.312	84.734	1.00	20.86
35	ATOM	2772	O	VAL A 353	15.191	38.139	85.468	1.00	17.05
	ATOM	2773	CB	VAL A 353	17.158	36.280	83.664	1.00	11.73
	ATOM	2774	CG1	VAL A 353	16.794	35.472	84.932	1.00	9.84
	ATOM	2775	CG2	VAL A 353	17.089	35.402	82.409	1.00	12.88
	ATOM	2776	N	LYS A 354	17.112	39.198	84.995	1.00	14.12
40	ATOM	2777	CA	LYS A 354	17.002	39.913	86.238	1.00	12.36
	ATOM	2778	C	LYS A 354	15.826	40.848	86.179	1.00	17.58
	ATOM	2779	O	LYS A 354	15.072	41.024	87.109	1.00	19.87
	ATOM	2780	CB	LYS A 354	18.298	40.637	86.571	1.00	17.00
	ATOM	2781	CG	LYS A 354	18.143	41.562	87.760	1.00	23.68
45	ATOM	2782	CD	LYS A 354	19.434	42.305	88.057	1.00	46.34
	ATOM	2783	CE	LYS A 354	19.458	43.018	89.409	1.00	67.61
	ATOM	2784	NZ	LYS A 354	20.473	44.087	89.499	1.00	72.09
	ATOM	2785	N	THR A 355	15.685	41.464	85.045	1.00	17.30
	ATOM	2786	CA	THR A 355	14.634	42.423	84.776	1.00	19.03
50	ATOM	2787	C	THR A 355	13.239	41.788	84.894	1.00	24.56
	ATOM	2788	O	THR A 355	12.375	42.258	85.644	1.00	21.41
	ATOM	2789	CB	THR A 355	14.938	43.046	83.383	1.00	26.33
	ATOM	2790	OG1	THR A 355	15.936	44.041	83.502	1.00	33.25
	ATOM	2791	CG2	THR A 355	13.720	43.535	82.618	1.00	35.80
55	ATOM	2792	N	PHE A 356	12.986	40.698	84.173	1.00	15.72
	ATOM	2793	CA	PHE A 356	11.685	40.084	84.266	1.00	13.01
	ATOM	2794	C	PHE A 356	11.492	39.347	85.550	1.00	16.31
	ATOM	2795	O	PHE A 356	10.364	39.197	85.974	1.00	17.60
	ATOM	2796	CB	PHE A 356	11.633	38.916	83.282	1.00	14.64
60	ATOM	2797	CG	PHE A 356	11.306	39.389	81.925	1.00	20.28
	ATOM	2798	CD1	PHE A 356	10.172	40.180	81.740	1.00	26.98
	ATOM	2799	CD2	PHE A 356	12.119	39.030	80.848	1.00	25.24
	ATOM	2800	CE1	PHE A 356	9.854	40.645	80.463	1.00	32.69
	ATOM	2801	CE2	PHE A 356	11.801	39.480	79.568	1.00	32.46
	ATOM	2802	CZ	PHE A 356	10.672	40.285	79.388	1.00	34.40

	ATOM	2803	N	GLY A 357	12.567	38.773	86.080	1.00	13.33
	ATOM	2804	CA	GLY A 357	12.484	37.898	87.250	1.00	13.08
	ATOM	2805	C	GLY A 357	12.710	36.459	86.719	1.00	14.31
5	ATOM	2806	O	GLY A 357	12.203	36.080	85.639	1.00	15.86
	ATOM	2807	N	GLU A 358	13.458	35.652	87.492	1.00	10.82
	ATOM	2808	CA	GLU A 358	13.852	34.295	87.104	1.00	14.45
	ATOM	2809	C	GLU A 358	12.748	33.275	86.946	1.00	17.31
	ATOM	2810	O	GLU A 358	12.966	32.190	86.382	1.00	16.43
10	ATOM	2811	CB	GLU A 358	14.976	33.766	88.003	1.00	15.36
	ATOM	2812	CG	GLU A 358	14.483	33.548	89.449	1.00	29.12
	ATOM	2813	CD	GLU A 358	15.577	33.165	90.432	1.00	29.41
	ATOM	2814	OE1	GLU A 358	16.737	32.999	90.104	1.00	53.87
	ATOM	2815	OE2	GLU A 358	15.150	33.063	91.673	1.00	78.82
15	ATOM	2816	N	THR A 359	11.552	33.623	87.445	1.00	15.09
	ATOM	2817	CA	THR A 359	10.397	32.715	87.319	1.00	14.57
	ATOM	2818	C	THR A 359	9.370	33.195	86.297	1.00	18.20
	ATOM	2819	O	THR A 359	8.308	32.602	86.161	1.00	17.32
	ATOM	2820	CB	THR A 359	9.665	32.513	88.661	1.00	10.95
20	ATOM	2821	OG1	THR A 359	9.014	33.714	89.058	1.00	16.14
	ATOM	2822	CG2	THR A 359	10.598	31.933	89.726	1.00	12.38
	ATOM	2823	N	HIS A 360	9.704	34.267	85.600	1.00	13.00
	ATOM	2824	CA	HIS A 360	8.838	34.886	84.648	1.00	13.62
	ATOM	2825	C	HIS A 360	8.702	34.081	83.372	1.00	22.06
25	ATOM	2826	O	HIS A 360	9.701	33.663	82.770	1.00	18.40
	ATOM	2827	CB	HIS A 360	9.369	36.276	84.298	1.00	14.44
	ATOM	2828	CG	HIS A 360	8.321	37.043	83.556	1.00	16.43
	ATOM	2829	ND1	HIS A 360	7.725	38.218	84.074	1.00	18.54
	ATOM	2830	CD2	HIS A 360	7.765	36.779	82.349	1.00	13.02
30	ATOM	2831	CE1	HIS A 360	6.832	38.646	83.174	1.00	15.62
	ATOM	2832	NE2	HIS A 360	6.848	37.781	82.139	1.00	17.56
	ATOM	2833	N	PRO A 361	7.447	33.890	82.953	1.00	18.85
	ATOM	2834	CA	PRO A 361	7.204	33.111	81.752	1.00	17.22
	ATOM	2835	C	PRO A 361	7.871	33.616	80.481	1.00	18.11
35	ATOM	2836	O	PRO A 361	8.093	32.859	79.534	1.00	16.08
	ATOM	2837	CB	PRO A 361	5.680	32.939	81.654	1.00	17.39
	ATOM	2838	CG	PRO A 361	5.232	32.970	83.121	1.00	22.59
	ATOM	2839	CD	PRO A 361	6.220	33.896	83.819	1.00	17.68
40	ATOM	2840	N	PHE A 362	8.192	34.899	80.434	1.00	13.89
	ATOM	2841	CA	PHE A 362	8.822	35.408	79.237	1.00	15.98
	ATOM	2842	C	PHE A 362	10.286	35.089	79.221	1.00	13.98
	ATOM	2843	O	PHE A 362	10.926	35.501	78.277	1.00	14.94
	ATOM	2844	CB	PHE A 362	8.690	36.921	79.035	1.00	19.97
	ATOM	2845	CG	PHE A 362	7.273	37.416	78.899	1.00	23.23
45	ATOM	2846	CD1	PHE A 362	6.227	36.538	78.616	1.00	24.55
	ATOM	2847	CD2	PHE A 362	6.998	38.782	79.021	1.00	27.19
	ATOM	2848	CE1	PHE A 362	4.927	37.035	78.487	1.00	26.53
	ATOM	2849	CE2	PHE A 362	5.704	39.298	78.891	1.00	31.58
	ATOM	2850	CZ	PHE A 362	4.663	38.404	78.626	1.00	28.23
50	ATOM	2851	N	THR A 363	10.787	34.395	80.244	1.00	14.98
	ATOM	2852	CA	THR A 363	12.209	33.992	80.288	1.00	12.84
	ATOM	2853	C	THR A 363	12.446	32.567	79.724	1.00	19.07
	ATOM	2854	O	THR A 363	13.562	32.031	79.682	1.00	15.98
	ATOM	2855	CB	THR A 363	12.924	34.230	81.643	1.00	12.16
55	ATOM	2856	OG1	THR A 363	12.406	33.364	82.634	1.00	12.37
	ATOM	2857	CG2	THR A 363	12.828	35.706	82.046	1.00	15.02
	ATOM	2858	N	LYS A 364	11.344	31.922	79.336	1.00	15.36
	ATOM	2859	CA	LYS A 364	11.390	30.603	78.747	1.00	12.01
	ATOM	2860	C	LYS A 364	11.762	30.792	77.276	1.00	15.28
60	ATOM	2861	O	LYS A 364	11.373	31.788	76.600	1.00	12.86
	ATOM	2862	CB	LYS A 364	9.988	30.005	78.770	1.00	11.05
	ATOM	2863	CG	LYS A 364	9.506	29.626	80.142	1.00	18.14
	ATOM	2864	CD	LYS A 364	8.036	29.218	80.150	1.00	16.21
	ATOM	2865	CE	LYS A 364	7.664	28.728	81.534	1.00	29.65
	ATOM	2866	NZ	LYS A 364	6.221	28.541	81.736	1.00	39.48

	ATOM	2867	N	LEU	A	365	12.474	29.806	76.720	1.00	13.94
	ATOM	2868	CA	LEU	A	365	12.885	29.872	75.325	1.00	12.51
	ATOM	2869	C	LEU	A	365	11.671	29.766	74.388	1.00	18.38
5	ATOM	2870	O	LEU	A	365	11.491	30.548	73.436	1.00	17.81
	ATOM	2871	CB	LEU	A	365	13.926	28.767	75.037	1.00	13.31
	ATOM	2872	CG	LEU	A	365	14.542	28.857	73.653	1.00	18.68
	ATOM	2873	CD1	LEU	A	365	15.219	30.203	73.489	1.00	19.46
	ATOM	2874	CD2	LEU	A	365	15.612	27.777	73.545	1.00	19.36
	ATOM	2875	N	VAL	A	366	10.805	28.804	74.685	1.00	15.92
10	ATOM	2876	CA	VAL	A	366	9.534	28.572	73.964	1.00	18.17
	ATOM	2877	C	VAL	A	366	8.411	29.193	74.832	1.00	19.02
	ATOM	2878	O	VAL	A	366	8.188	28.759	75.953	1.00	15.50
	ATOM	2879	CB	VAL	A	366	9.276	27.091	73.587	1.00	17.55
	ATOM	2880	CG1	VAL	A	366	7.985	26.938	72.761	1.00	13.93
15	ATOM	2881	CG2	VAL	A	366	10.488	26.522	72.828	1.00	15.55
	ATOM	2882	N	VAL	A	367	7.724	30.226	74.348	1.00	15.38
	ATOM	2883	CA	VAL	A	367	6.725	30.907	75.166	1.00	14.70
	ATOM	2884	C	VAL	A	367	5.318	30.654	74.723	1.00	22.22
	ATOM	2885	O	VAL	A	367	5.145	30.064	73.683	1.00	21.51
20	ATOM	2886	CB	VAL	A	367	6.946	32.396	75.034	1.00	17.48
	ATOM	2887	CG1	VAL	A	367	8.305	32.742	75.633	1.00	17.07
	ATOM	2888	CG2	VAL	A	367	6.874	32.793	73.566	1.00	15.29
	ATOM	2889	N	ASP	A	368	4.331	31.134	75.471	1.00	17.48
	ATOM	2890	CA	ASP	A	368	2.937	30.940	75.054	1.00	16.38
25	ATOM	2891	C	ASP	A	368	2.362	32.335	74.997	1.00	14.53
	ATOM	2892	O	ASP	A	368	2.198	32.991	75.998	1.00	18.37
	ATOM	2893	CB	ASP	A	368	2.181	30.036	76.049	1.00	17.68
	ATOM	2894	CG	ASP	A	368	0.683	29.999	75.796	1.00	25.53
	ATOM	2895	OD1	ASP	A	368	0.115	30.610	74.927	1.00	17.63
30	ATOM	2896	OD2	ASP	A	368	0.047	29.214	76.601	1.00	31.38
	ATOM	2897	N	LEU	A	369	2.161	32.859	73.829	1.00	10.10
	ATOM	2898	CA	LEU	A	369	1.697	34.212	73.698	1.00	12.48
	ATOM	2899	C	LEU	A	369	0.215	34.381	73.668	1.00	18.80
	ATOM	2900	O	LEU	A	369	-0.276	35.378	73.147	1.00	21.46
35	ATOM	2901	CB	LEU	A	369	2.274	34.974	72.500	1.00	10.77
	ATOM	2902	CG	LEU	A	369	3.779	35.129	72.552	1.00	17.85
	ATOM	2903	CD1	LEU	A	369	4.256	35.435	71.127	1.00	16.11
	ATOM	2904	CD2	LEU	A	369	4.076	36.290	73.493	1.00	16.09
	ATOM	2905	N	THR	A	370	-0.484	33.422	74.207	1.00	18.13
40	ATOM	2906	CA	THR	A	370	-1.922	33.603	74.226	1.00	19.34
	ATOM	2907	C	THR	A	370	-2.259	34.856	75.052	1.00	24.31
	ATOM	2908	O	THR	A	370	-1.890	35.048	76.218	1.00	22.17
	ATOM	2909	CB	THR	A	370	-2.558	32.439	74.994	1.00	31.44
	ATOM	2910	OG1	THR	A	370	-2.383	31.226	74.291	1.00	25.88
45	ATOM	2911	CG2	THR	A	370	-4.020	32.785	75.234	1.00	26.93
	ATOM	2912	N	ASP	A	371	-3.003	35.742	74.449	1.00	22.55
	ATOM	2913	CA	ASP	A	371	-3.367	36.940	75.169	1.00	23.57
	ATOM	2914	C	ASP	A	371	-2.254	37.904	75.464	1.00	24.80
	ATOM	2915	O	ASP	A	371	-2.491	38.846	76.176	1.00	21.58
50	ATOM	2916	CB	ASP	A	371	-4.191	36.676	76.420	1.00	26.84
	ATOM	2917	CG	ASP	A	371	-5.528	36.132	75.994	1.00	39.22
	ATOM	2918	OD1	ASP	A	371	-6.111	36.460	74.949	1.00	32.59
	ATOM	2919	OD2	ASP	A	371	-5.951	35.237	76.850	1.00	41.05
	ATOM	2920	N	ILE	A	372	-1.084	37.719	74.889	1.00	20.31
55	ATOM	2921	CA	ILE	A	372	-0.009	38.663	75.120	1.00	17.55
	ATOM	2922	C	ILE	A	372	0.375	39.330	73.822	1.00	19.77
	ATOM	2923	O	ILE	A	372	0.553	38.641	72.818	1.00	22.17
	ATOM	2924	CB	ILE	A	372	1.249	37.911	75.480	1.00	20.80
	ATOM	2925	CG1	ILE	A	372	1.016	36.973	76.645	1.00	22.62
60	ATOM	2926	CG2	ILE	A	372	2.392	38.904	75.707	1.00	22.69
	ATOM	2927	CD1	ILE	A	372	0.374	37.712	77.794	1.00	32.92
	ATOM	2928	N	ASP	A	373	0.560	40.636	73.857	1.00	14.79
	ATOM	2929	CA	ASP	A	373	0.958	41.385	72.693	1.00	14.17
	ATOM	2930	C	ASP	A	373	2.445	41.160	72.485	1.00	21.76

5	ATOM	2931	O	ASP	A	373	3.280	41.384	73.355	1.00	21.72
	ATOM	2932	CB	ASP	A	373	0.717	42.882	72.934	1.00	15.14
	ATOM	2933	CG	ASP	A	373	1.247	43.773	71.829	1.00	21.68
	ATOM	2934	OD1	ASP	A	373	2.004	43.399	70.933	1.00	23.88
	ATOM	2935	OD2	ASP	A	373	0.769	45.005	71.893	1.00	22.14
	ATOM	2936	N	PRO	A	374	2.810	40.719	71.305	1.00	21.82
10	ATOM	2937	CA	PRO	A	374	4.210	40.450	71.050	1.00	21.09
	ATOM	2938	C	PRO	A	374	5.149	41.600	71.350	1.00	19.90
	ATOM	2939	O	PRO	A	374	6.240	41.371	71.873	1.00	14.86
	ATOM	2940	CB	PRO	A	374	4.312	39.943	69.607	1.00	23.86
	ATOM	2941	CG	PRO	A	374	2.896	39.591	69.183	1.00	24.47
	ATOM	2942	CD	PRO	A	374	1.967	40.317	70.149	1.00	22.40
15	ATOM	2943	N	ASP	A	375	4.722	42.819	71.007	1.00	14.82
	ATOM	2944	CA	ASP	A	375	5.537	44.022	71.250	1.00	16.55
	ATOM	2945	C	ASP	A	375	5.870	44.193	72.728	1.00	20.20
	ATOM	2946	O	ASP	A	375	6.896	44.725	73.140	1.00	19.90
	ATOM	2947	CB	ASP	A	375	4.811	45.273	70.724	1.00	15.07
	ATOM	2948	CG	ASP	A	375	4.971	45.315	69.240	1.00	18.22
20	ATOM	2949	OD1	ASP	A	375	5.933	44.823	68.667	1.00	18.62
	ATOM	2950	OD2	ASP	A	375	3.980	45.894	68.637	1.00	21.94
	ATOM	2951	N	VAL	A	376	4.952	43.710	73.532	1.00	17.46
	ATOM	2952	CA	VAL	A	376	5.064	43.756	74.968	1.00	17.12
	ATOM	2953	C	VAL	A	376	5.930	42.629	75.532	1.00	22.81
	ATOM	2954	O	VAL	A	376	6.634	42.825	76.514	1.00	23.05
25	ATOM	2955	CB	VAL	A	376	3.686	43.683	75.601	1.00	19.84
	ATOM	2956	CG1	VAL	A	376	3.841	43.374	77.085	1.00	21.03
	ATOM	2957	CG2	VAL	A	376	2.950	45.006	75.445	1.00	15.99
	ATOM	2958	N	ALA	A	377	5.896	41.436	74.950	1.00	16.51
	ATOM	2959	CA	ALA	A	377	6.711	40.369	75.484	1.00	15.14
	ATOM	2960	C	ALA	A	377	8.136	40.459	74.987	1.00	16.36
30	ATOM	2961	O	ALA	A	377	9.037	39.827	75.498	1.00	13.72
	ATOM	2962	CB	ALA	A	377	6.105	39.042	75.033	1.00	14.47
	ATOM	2963	N	TYR	A	378	8.350	41.216	73.928	1.00	15.01
	ATOM	2964	CA	TYR	A	378	9.671	41.304	73.305	1.00	15.91
	ATOM	2965	C	TYR	A	378	10.864	41.502	74.222	1.00	20.25
	ATOM	2966	O	TYR	A	378	10.855	42.413	75.021	1.00	12.62
40	ATOM	2967	CB	TYR	A	378	9.648	42.365	72.215	1.00	15.77
	ATOM	2968	CG	TYR	A	378	10.914	42.510	71.412	1.00	14.92
	ATOM	2969	CD1	TYR	A	378	11.304	41.495	70.541	1.00	15.79
	ATOM	2970	CD2	TYR	A	378	11.691	43.665	71.485	1.00	12.44
	ATOM	2971	CE1	TYR	A	378	12.437	41.625	69.745	1.00	13.18
	ATOM	2972	CE2	TYR	A	378	12.830	43.807	70.694	1.00	10.34
45	ATOM	2973	CZ	TYR	A	378	13.206	42.783	69.828	1.00	13.99
	ATOM	2974	OH	TYR	A	378	14.324	42.907	69.034	1.00	17.70
	ATOM	2975	N	SER	A	379	11.924	40.690	74.065	1.00	19.28
	ATOM	2976	CA	SER	A	379	13.121	40.813	74.896	1.00	16.38
	ATOM	2977	C	SER	A	379	14.324	40.157	74.257	1.00	16.16
	ATOM	2978	O	SER	A	379	14.257	39.722	73.109	1.00	14.62
50	ATOM	2979	CB	SER	A	379	12.883	40.256	76.301	1.00	13.15
	ATOM	2980	OG	SER	A	379	13.035	38.846	76.268	1.00	14.44
	ATOM	2981	N	SER	A	380	15.431	40.094	75.019	1.00	13.34
	ATOM	2982	CA	SER	A	380	16.705	39.480	74.595	1.00	13.12
	ATOM	2983	C	SER	A	380	16.734	37.989	74.811	1.00	13.76
	ATOM	2984	O	SER	A	380	17.705	37.336	74.470	1.00	15.40
55	ATOM	2985	CB	SER	A	380	17.864	40.053	75.421	1.00	12.15
	ATOM	2986	OG	SER	A	380	17.883	41.443	75.162	1.00	18.31
	ATOM	2987	N	VAL	A	381	15.685	37.472	75.444	1.00	10.45
	ATOM	2988	CA	VAL	A	381	15.613	36.070	75.778	1.00	10.90
	ATOM	2989	C	VAL	A	381	15.709	35.177	74.561	1.00	15.64
	ATOM	2990	O	VAL	A	381	16.547	34.295	74.468	1.00	17.11
60	ATOM	2991	CB	VAL	A	381	14.384	35.734	76.636	1.00	12.01
	ATOM	2992	CG1	VAL	A	381	14.269	34.234	76.861	1.00	12.07
	ATOM	2993	CG2	VAL	A	381	14.410	36.468	77.980	1.00	9.45
	ATOM	2994	N	PRO	A	382	14.832	35.347	73.603	1.00	12.68

	ATOM	2995	CA	PRO A 382	14.939	34.427	72.488	1.00	11.41
	ATOM	2996	C	PRO A 382	16.300	34.551	71.794	1.00	17.91
	ATOM	2997	O	PRO A 382	16.830	33.564	71.249	1.00	16.29
5	ATOM	2998	CB	PRO A 382	13.817	34.802	71.513	1.00	11.39
	ATOM	2999	CG	PRO A 382	13.328	36.176	71.947	1.00	14.03
	ATOM	3000	CD	PRO A 382	13.778	36.366	73.378	1.00	10.32
	ATOM	3001	N	TYR A 383	16.835	35.791	71.761	1.00	11.66
	ATOM	3002	CA	TYR A 383	18.106	36.045	71.127	1.00	11.53
10	ATOM	3003	C	TYR A 383	19.229	35.291	71.821	1.00	17.48
	ATOM	3004	O	TYR A 383	19.975	34.554	71.192	1.00	13.36
	ATOM	3005	CB	TYR A 383	18.443	37.560	71.238	1.00	12.85
	ATOM	3006	CG	TYR A 383	17.598	38.417	70.335	1.00	14.70
	ATOM	3007	CD1	TYR A 383	16.309	38.809	70.707	1.00	16.40
	ATOM	3008	CD2	TYR A 383	18.069	38.790	69.073	1.00	13.38
15	ATOM	3009	CE1	TYR A 383	15.536	39.577	69.832	1.00	15.57
	ATOM	3010	CE2	TYR A 383	17.318	39.560	68.187	1.00	10.16
	ATOM	3011	CZ	TYR A 383	16.039	39.947	68.582	1.00	14.31
	ATOM	3012	OH	TYR A 383	15.280	40.713	67.728	1.00	12.64
20	ATOM	3013	N	GLU A 384	19.335	35.529	73.134	1.00	12.00
	ATOM	3014	CA	GLU A 384	20.409	35.067	73.989	1.00	10.21
	ATOM	3015	C	GLU A 384	20.251	33.701	74.605	1.00	15.22
	ATOM	3016	O	GLU A 384	21.228	32.952	74.692	1.00	12.89
	ATOM	3017	CB	GLU A 384	20.888	36.205	74.899	1.00	9.54
25	ATOM	3018	CG	GLU A 384	21.207	37.468	74.056	1.00	7.64
	ATOM	3019	CD	GLU A 384	22.497	37.277	73.260	1.00	19.43
	ATOM	3020	OE1	GLU A 384	23.237	36.310	73.331	1.00	15.97
	ATOM	3021	OE2	GLU A 384	22.779	38.260	72.480	1.00	11.96
	ATOM	3022	N	LYS A 385	19.036	33.345	75.034	1.00	12.07
30	ATOM	3023	CA	LYS A 385	18.898	31.984	75.533	1.00	13.42
	ATOM	3024	C	LYS A 385	19.015	31.052	74.294	1.00	16.08
	ATOM	3025	O	LYS A 385	19.593	29.947	74.359	1.00	13.01
	ATOM	3026	CB	LYS A 385	17.623	31.742	76.350	1.00	12.55
	ATOM	3027	CG	LYS A 385	17.554	30.302	76.839	1.00	14.13
35	ATOM	3028	CD	LYS A 385	16.371	29.987	77.750	1.00	11.06
	ATOM	3029	CE	LYS A 385	16.360	30.692	79.099	1.00	12.13
	ATOM	3030	NZ	LYS A 385	15.359	30.132	80.029	1.00	11.47
	ATOM	3031	N	GLY A 386	18.477	31.533	73.138	1.00	11.14
	ATOM	3032	CA	GLY A 386	18.521	30.792	71.864	1.00	9.75
40	ATOM	3033	C	GLY A 386	19.974	30.567	71.409	1.00	16.73
	ATOM	3034	O	GLY A 386	20.417	29.446	71.100	1.00	13.12
	ATOM	3035	N	PHE A 387	20.747	31.663	71.383	1.00	15.76
	ATOM	3036	CA	PHE A 387	22.155	31.620	71.013	1.00	13.70
	ATOM	3037	C	PHE A 387	22.926	30.744	71.982	1.00	17.51
45	ATOM	3038	O	PHE A 387	23.763	29.955	71.563	1.00	14.54
	ATOM	3039	CB	PHE A 387	22.846	32.992	70.918	1.00	13.42
	ATOM	3040	CG	PHE A 387	24.350	32.820	70.816	1.00	12.26
	ATOM	3041	CD1	PHE A 387	24.963	32.588	69.582	1.00	11.34
	ATOM	3042	CD2	PHE A 387	25.170	32.869	71.944	1.00	14.36
50	ATOM	3043	CE1	PHE A 387	26.346	32.422	69.468	1.00	12.53
	ATOM	3044	CE2	PHE A 387	26.558	32.693	71.864	1.00	12.76
	ATOM	3045	CZ	PHE A 387	27.141	32.454	70.618	1.00	8.96
	ATOM	3046	N	ALA A 388	22.620	30.836	73.284	1.00	15.35
	ATOM	3047	CA	ALA A 388	23.344	30.017	74.240	1.00	12.20
55	ATOM	3048	C	ALA A 388	23.084	28.552	74.014	1.00	15.51
	ATOM	3049	O	ALA A 388	23.973	27.717	74.125	1.00	16.33
	ATOM	3050	CB	ALA A 388	22.970	30.429	75.655	1.00	13.75
	ATOM	3051	N	LEU A 389	21.843	28.209	73.701	1.00	12.77
	ATOM	3052	CA	LEU A 389	21.542	26.793	73.446	1.00	13.17
60	ATOM	3053	C	LEU A 389	22.382	26.286	72.266	1.00	20.08
	ATOM	3054	O	LEU A 389	23.030	25.214	72.312	1.00	16.85
	ATOM	3055	CB	LEU A 389	20.065	26.657	73.061	1.00	9.51
	ATOM	3056	CG	LEU A 389	19.639	25.263	72.656	1.00	16.80
	ATOM	3057	CD1	LEU A 389	20.089	24.265	73.719	1.00	16.85
	ATOM	3058	CD2	LEU A 389	18.119	25.247	72.538	1.00	12.75

5	ATOM	3059	N	LEU	A	390	22.374	27.059	71.172	1.00	11.37
	ATOM	3060	CA	LEU	A	390	23.140	26.650	69.998	1.00	9.78
	ATOM	3061	C	LEU	A	390	24.651	26.539	70.251	1.00	19.70
	ATOM	3062	O	LEU	A	390	25.305	25.609	69.745	1.00	18.74
	ATOM	3063	CB	LEU	A	390	22.887	27.525	68.764	1.00	9.94
10	ATOM	3064	CG	LEU	A	390	21.402	27.590	68.367	1.00	14.32
	ATOM	3065	CD1	LEU	A	390	21.153	28.632	67.257	1.00	14.04
	ATOM	3066	CD2	LEU	A	390	20.902	26.209	67.923	1.00	14.70
	ATOM	3067	N	PHE	A	391	25.205	27.490	71.026	1.00	12.66
	ATOM	3068	CA	PHE	A	391	26.635	27.538	71.333	1.00	13.86
15	ATOM	3069	C	PHE	A	391	27.053	26.343	72.147	1.00	17.87
	ATOM	3070	O	PHE	A	391	28.104	25.733	71.983	1.00	18.52
	ATOM	3071	CB	PHE	A	391	26.964	28.806	72.105	1.00	14.47
	ATOM	3072	CG	PHE	A	391	28.437	29.179	72.101	1.00	18.51
	ATOM	3073	CD1	PHE	A	391	29.237	28.996	70.973	1.00	18.55
20	ATOM	3074	CD2	PHE	A	391	29.030	29.748	73.233	1.00	18.59
	ATOM	3075	CE1	PHE	A	391	30.571	29.402	70.966	1.00	15.73
	ATOM	3076	CE2	PHE	A	391	30.373	30.137	73.252	1.00	18.49
	ATOM	3077	CZ	PHE	A	391	31.148	29.954	72.109	1.00	15.63
	ATOM	3078	N	TYR	A	392	26.148	26.008	73.039	1.00	16.91
25	ATOM	3079	CA	TYR	A	392	26.315	24.893	73.944	1.00	17.78
	ATOM	3080	C	TYR	A	392	26.288	23.570	73.175	1.00	19.46
	ATOM	3081	O	TYR	A	392	27.095	22.666	73.388	1.00	18.21
	ATOM	3082	CB	TYR	A	392	25.243	25.000	75.049	1.00	15.50
	ATOM	3083	CG	TYR	A	392	24.928	23.688	75.736	1.00	20.94
30	ATOM	3084	CD1	TYR	A	392	25.849	23.106	76.609	1.00	24.90
	ATOM	3085	CD2	TYR	A	392	23.715	23.034	75.528	1.00	21.37
	ATOM	3086	CE1	TYR	A	392	25.596	21.899	77.260	1.00	23.89
	ATOM	3087	CE2	TYR	A	392	23.438	21.821	76.162	1.00	24.11
	ATOM	3088	CZ	TYR	A	392	24.383	21.256	77.020	1.00	28.03
35	ATOM	3089	OH	TYR	A	392	24.112	20.087	77.665	1.00	20.09
	ATOM	3090	N	LEU	A	393	25.332	23.456	72.271	1.00	14.83
	ATOM	3091	CA	LEU	A	393	25.210	22.267	71.440	1.00	15.47
	ATOM	3092	C	LEU	A	393	26.432	22.122	70.544	1.00	20.32
	ATOM	3093	O	LEU	A	393	26.867	21.005	70.304	1.00	21.36
40	ATOM	3094	CB	LEU	A	393	23.961	22.344	70.508	1.00	16.00
	ATOM	3095	CG	LEU	A	393	22.638	22.027	71.223	1.00	18.37
	ATOM	3096	CD1	LEU	A	393	21.443	22.392	70.347	1.00	15.16
	ATOM	3097	CD2	LEU	A	393	22.577	20.601	71.795	1.00	17.06
	ATOM	3098	N	GLU	A	394	26.921	23.255	70.015	1.00	16.00
45	ATOM	3099	CA	GLU	A	394	28.104	23.298	69.160	1.00	13.58
	ATOM	3100	C	GLU	A	394	29.268	22.719	69.931	1.00	17.05
	ATOM	3101	O	GLU	A	394	30.014	21.889	69.453	1.00	15.79
	ATOM	3102	CB	GLU	A	394	28.434	24.745	68.776	1.00	17.59
	ATOM	3103	CG	GLU	A	394	29.903	24.871	68.320	1.00	23.24
50	ATOM	3104	CD	GLU	A	394	30.332	26.300	68.152	1.00	32.12
	ATOM	3105	OE1	GLU	A	394	29.709	27.146	67.532	1.00	23.57
	ATOM	3106	OE2	GLU	A	394	31.480	26.547	68.714	1.00	26.27
	ATOM	3107	N	GLN	A	395	29.410	23.127	71.183	1.00	16.99
	ATOM	3108	CA	GLN	A	395	30.462	22.610	72.030	1.00	17.56
55	ATOM	3109	C	GLN	A	395	30.293	21.127	72.360	1.00	23.89
	ATOM	3110	O	GLN	A	395	31.258	20.359	72.421	1.00	24.66
	ATOM	3111	CB	GLN	A	395	30.725	23.461	73.318	1.00	17.71
	ATOM	3112	CG	GLN	A	395	31.195	24.888	72.918	1.00	17.45
	ATOM	3113	CD	GLN	A	395	31.354	25.851	74.081	1.00	21.98
60	ATOM	3114	OE1	GLN	A	395	30.986	25.584	75.224	1.00	16.80
	ATOM	3115	NE2	GLN	A	395	31.943	26.985	73.776	1.00	16.78
	ATOM	3116	N	LEU	A	396	29.058	20.706	72.588	1.00	21.86
	ATOM	3117	CA	LEU	A	396	28.767	19.330	72.932	1.00	20.27
	ATOM	3118	C	LEU	A	396	28.936	18.387	71.744	1.00	22.03
	ATOM	3119	O	LEU	A	396	29.381	17.260	71.857	1.00	25.07
	ATOM	3120	CB	LEU	A	396	27.315	19.276	73.441	1.00	18.56
	ATOM	3121	CG	LEU	A	396	26.852	17.960	73.994	1.00	22.66
	ATOM	3122	CD1	LEU	A	396	27.493	17.780	75.354	1.00	25.52



	ATOM	3123	CD2	LEU	A	396	25.340	18.045	74.179	1.00	17.79
	ATOM	3124	N	LEU	A	397	28.575	18.831	70.579	1.00	15.28
	ATOM	3125	CA	LEU	A	397	28.603	17.939	69.433	1.00	16.80
5	ATOM	3126	C	LEU	A	397	29.846	17.946	68.565	1.00	26.85
	ATOM	3127	O	LEU	A	397	29.864	17.399	67.458	1.00	29.08
	ATOM	3128	CB	LEU	A	397	27.371	18.242	68.552	1.00	15.51
	ATOM	3129	CG	LEU	A	397	26.013	18.018	69.261	1.00	20.96
	ATOM	3130	CD1	LEU	A	397	24.874	18.717	68.501	1.00	19.35
10	ATOM	3131	CD2	LEU	A	397	25.692	16.536	69.461	1.00	19.12
	ATOM	3132	N	GLY	A	398	30.901	18.598	68.985	1.00	24.55
	ATOM	3133	CA	GLY	A	398	32.006	18.516	68.076	1.00	27.19
	ATOM	3134	C	GLY	A	398	32.648	19.794	67.598	1.00	29.41
	ATOM	3135	O	GLY	A	398	33.743	19.713	67.048	1.00	30.13
	ATOM	3136	N	GLY	A	399	32.020	20.951	67.752	1.00	19.25
15	ATOM	3137	CA	GLY	A	399	32.700	22.143	67.291	1.00	16.50
	ATOM	3138	C	GLY	A	399	31.937	22.850	66.212	1.00	15.03
	ATOM	3139	O	GLY	A	399	30.976	22.315	65.694	1.00	17.49
	ATOM	3140	N	PRO	A	400	32.397	24.045	65.870	1.00	21.52
20	ATOM	3141	CA	PRO	A	400	31.758	24.918	64.909	1.00	21.69
	ATOM	3142	C	PRO	A	400	31.599	24.312	63.552	1.00	29.85
	ATOM	3143	O	PRO	A	400	30.540	24.433	62.921	1.00	24.28
	ATOM	3144	CB	PRO	A	400	32.574	26.210	64.802	1.00	21.33
	ATOM	3145	CG	PRO	A	400	33.868	25.949	65.552	1.00	27.07
25	ATOM	3146	CD	PRO	A	400	33.698	24.635	66.306	1.00	25.67
	ATOM	3147	N	GLU	A	401	32.679	23.674	63.128	1.00	28.84
	ATOM	3148	CA	GLU	A	401	32.630	23.048	61.831	1.00	30.42
	ATOM	3149	C	GLU	A	401	31.491	22.055	61.764	1.00	22.63
	ATOM	3150	O	GLU	A	401	30.664	22.034	60.872	1.00	21.35
30	ATOM	3151	CB	GLU	A	401	33.915	22.247	61.648	1.00	35.39
	ATOM	3152	CG	GLU	A	401	35.125	23.160	61.445	1.00	70.34
	ATOM	3153	CD	GLU	A	401	35.978	22.574	60.355	1.00	100.00
	ATOM	3154	OE1	GLU	A	401	35.711	21.486	59.851	1.00	100.00
	ATOM	3155	OE2	GLU	A	401	37.013	23.329	60.026	1.00	100.00
35	ATOM	3156	N	ILE	A	402	31.484	21.185	62.731	1.00	20.44
	ATOM	3157	CA	ILE	A	402	30.481	20.165	62.766	1.00	21.27
	ATOM	3158	C	ILE	A	402	29.082	20.761	62.895	1.00	26.84
	ATOM	3159	O	ILE	A	402	28.142	20.366	62.199	1.00	18.68
	ATOM	3160	CB	ILE	A	402	30.819	19.218	63.904	1.00	24.03
40	ATOM	3161	CG1	ILE	A	402	31.974	18.299	63.503	1.00	23.45
	ATOM	3162	CG2	ILE	A	402	29.587	18.421	64.334	1.00	28.69
	ATOM	3163	CD1	ILE	A	402	32.370	17.396	64.665	1.00	26.57
	ATOM	3164	N	PHE	A	403	28.948	21.745	63.773	1.00	21.88
	ATOM	3165	CA	PHE	A	403	27.646	22.325	63.962	1.00	20.25
45	ATOM	3166	C	PHE	A	403	27.149	23.152	62.802	1.00	20.90
	ATOM	3167	O	PHE	A	403	25.951	23.246	62.510	1.00	21.88
	ATOM	3168	CB	PHE	A	403	27.555	23.073	65.298	1.00	22.18
	ATOM	3169	CG	PHE	A	403	26.121	23.247	65.764	1.00	20.23
	ATOM	3170	CD1	PHE	A	403	25.411	22.189	66.331	1.00	21.99
50	ATOM	3171	CD2	PHE	A	403	25.478	24.479	65.660	1.00	25.50
	ATOM	3172	CE1	PHE	A	403	24.106	22.345	66.801	1.00	23.07
	ATOM	3173	CE2	PHE	A	403	24.156	24.651	66.081	1.00	25.44
	ATOM	3174	CZ	PHE	A	403	23.472	23.581	66.661	1.00	22.55
	ATOM	3175	N	LEU	A	404	28.076	23.804	62.121	1.00	17.83
55	ATOM	3176	CA	LEU	A	404	27.664	24.596	60.973	1.00	17.93
	ATOM	3177	C	LEU	A	404	27.136	23.666	59.868	1.00	24.59
	ATOM	3178	O	LEU	A	404	26.297	24.031	59.044	1.00	22.86
	ATOM	3179	CB	LEU	A	404	28.808	25.526	60.504	1.00	17.59
	ATOM	3180	CG	LEU	A	404	28.952	26.728	61.425	1.00	19.68
60	ATOM	3181	CD1	LEU	A	404	30.297	27.424	61.239	1.00	19.60
	ATOM	3182	CD2	LEU	A	404	27.873	27.719	61.047	1.00	20.62
	ATOM	3183	N	GLY	A	405	27.630	22.418	59.852	1.00	21.24
	ATOM	3184	CA	GLY	A	405	27.164	21.461	58.868	1.00	18.72
	ATOM	3185	C	GLY	A	405	25.691	21.148	59.148	1.00	23.90
	ATOM	3186	O	GLY	A	405	24.853	21.054	58.240	1.00	24.54

	ATOM	3187	N	PHE A 406	25.363	20.987	60.438	1.00	18.59
	ATOM	3188	CA	PHE A 406	23.979	20.734	60.824	1.00	18.47
	ATOM	3189	C	PHE A 406	23.165	21.964	60.367	1.00	23.08
5	ATOM	3190	O	PHE A 406	22.150	21.917	59.663	1.00	20.15
	ATOM	3191	CB	PHE A 406	23.863	20.473	62.348	1.00	17.79
	ATOM	3192	CG	PHE A 406	22.470	20.814	62.819	1.00	19.42
	ATOM	3193	CD1	PHE A 406	21.400	19.986	62.482	1.00	20.66
	ATOM	3194	CD2	PHE A 406	22.213	21.990	63.526	1.00	20.37
10	ATOM	3195	CE1	PHE A 406	20.099	20.274	62.898	1.00	22.34
	ATOM	3196	CE2	PHE A 406	20.921	22.313	63.938	1.00	24.74
	ATOM	3197	CZ	PHE A 406	19.874	21.441	63.634	1.00	23.87
	ATOM	3198	N	LEU A 407	23.674	23.139	60.702	1.00	22.33
	ATOM	3199	CA	LEU A 407	22.979	24.352	60.309	1.00	26.37
15	ATOM	3200	C	LEU A 407	22.690	24.501	58.819	1.00	24.88
	ATOM	3201	O	LEU A 407	21.588	24.869	58.409	1.00	21.77
	ATOM	3202	CB	LEU A 407	23.742	25.574	60.831	1.00	30.18
	ATOM	3203	CG	LEU A 407	22.859	26.773	61.112	1.00	40.95
	ATOM	3204	CD1	LEU A 407	23.559	27.710	62.083	1.00	43.78
20	ATOM	3205	CD2	LEU A 407	22.622	27.498	59.806	1.00	47.26
	ATOM	3206	N	LYS A 408	23.679	24.256	57.981	1.00	21.87
	ATOM	3207	CA	LYS A 408	23.425	24.378	56.555	1.00	20.93
	ATOM	3208	C	LYS A 408	22.386	23.351	56.080	1.00	19.73
	ATOM	3209	O	LYS A 408	21.502	23.596	55.265	1.00	18.85
25	ATOM	3210	CB	LYS A 408	24.715	24.325	55.746	1.00	22.33
	ATOM	3211	CG	LYS A 408	24.420	24.240	54.262	1.00	33.19
	ATOM	3212	CD	LYS A 408	25.621	24.508	53.374	1.00	24.21
	ATOM	3213	CE	LYS A 408	26.812	25.035	54.131	1.00	44.20
	ATOM	3214	NZ	LYS A 408	27.904	25.399	53.217	1.00	61.63
30	ATOM	3215	N	ALA A 409	22.458	22.161	56.625	1.00	21.49
	ATOM	3216	CA	ALA A 409	21.496	21.116	56.278	1.00	23.64
	ATOM	3217	C	ALA A 409	20.037	21.458	56.689	1.00	28.20
	ATOM	3218	O	ALA A 409	19.059	21.204	55.968	1.00	23.25
	ATOM	3219	CB	ALA A 409	21.936	19.821	56.974	1.00	23.41
35	ATOM	3220	N	TYR A 410	19.921	22.030	57.900	1.00	23.19
	ATOM	3221	CA	TYR A 410	18.668	22.463	58.495	1.00	18.98
	ATOM	3222	C	TYR A 410	18.014	23.507	57.594	1.00	18.81
	ATOM	3223	O	TYR A 410	16.832	23.464	57.298	1.00	19.59
	ATOM	3224	CB	TYR A 410	18.973	22.980	59.910	1.00	19.89
40	ATOM	3225	CG	TYR A 410	17.947	23.924	60.516	1.00	20.57
	ATOM	3226	CD1	TYR A 410	16.715	23.463	60.981	1.00	22.20
	ATOM	3227	CD2	TYR A 410	18.219	25.286	60.649	1.00	21.16
	ATOM	3228	CE1	TYR A 410	15.767	24.320	61.551	1.00	17.85
	ATOM	3229	CE2	TYR A 410	17.289	26.163	61.213	1.00	22.58
45	ATOM	3230	CZ	TYR A 410	16.064	25.679	61.682	1.00	25.33
	ATOM	3231	OH	TYR A 410	15.182	26.528	62.315	1.00	20.84
	ATOM	3232	N	VAL A 411	18.809	24.459	57.147	1.00	17.01
	ATOM	3233	CA	VAL A 411	18.378	25.520	56.254	1.00	20.36
	ATOM	3234	C	VAL A 411	17.876	24.946	54.936	1.00	25.04
50	ATOM	3235	O	VAL A 411	16.859	25.377	54.394	1.00	22.50
	ATOM	3236	CB	VAL A 411	19.533	26.493	55.937	1.00	24.82
	ATOM	3237	CG1	VAL A 411	19.220	27.380	54.724	1.00	21.10
	ATOM	3238	CG2	VAL A 411	19.920	27.333	57.163	1.00	25.82
	ATOM	3239	N	GLU A 412	18.616	23.952	54.443	1.00	24.87
55	ATOM	3240	CA	GLU A 412	18.264	23.283	53.202	1.00	24.91
	ATOM	3241	C	GLU A 412	16.960	22.532	53.366	1.00	24.56
	ATOM	3242	O	GLU A 412	16.045	22.612	52.555	1.00	26.86
	ATOM	3243	CB	GLU A 412	19.330	22.211	52.913	1.00	28.91
	ATOM	3244	CG	GLU A 412	20.206	22.405	51.660	1.00	51.34
60	ATOM	3245	CD	GLU A 412	21.671	22.089	51.908	1.00	100.00
	ATOM	3246	OE1	GLU A 412	22.243	22.331	52.963	1.00	100.00
	ATOM	3247	OE2	GLU A 412	22.274	21.541	50.874	1.00	100.00
	ATOM	3248	N	LYS A 413	16.909	21.757	54.442	1.00	19.78
	ATOM	3249	CA	LYS A 413	15.755	20.940	54.747	1.00	15.53
	ATOM	3250	C	LYS A 413	14.484	21.718	54.892	1.00	22.00

	ATOM	3251	O	LYS	A 413	13.464	21.272	54.409	1.00	23.41
	ATOM	3252	CB	LYS	A 413	16.020	20.156	56.008	1.00	17.04
	ATOM	3253	CG	LYS	A 413	14.754	19.602	56.629	1.00	26.97
5	ATOM	3254	CD	LYS	A 413	14.225	18.351	55.955	1.00	37.17
	ATOM	3255	CE	LYS	A 413	13.553	17.352	56.893	1.00	56.50
	ATOM	3256	NZ	LYS	A 413	13.126	16.109	56.223	1.00	80.78
	ATOM	3257	N	PHE	A 414	14.543	22.888	55.532	1.00	19.76
	ATOM	3258	CA	PHE	A 414	13.366	23.700	55.808	1.00	17.00
	ATOM	3259	C	PHE	A 414	13.192	24.945	54.985	1.00	21.55
10	ATOM	3260	O	PHE	A 414	12.329	25.748	55.303	1.00	17.11
	ATOM	3261	CB	PHE	A 414	13.219	24.035	57.303	1.00	16.42
	ATOM	3262	CG	PHE	A 414	13.047	22.800	58.122	1.00	15.55
	ATOM	3263	CD1	PHE	A 414	11.894	22.029	57.979	1.00	19.53
	ATOM	3264	CD2	PHE	A 414	14.024	22.368	59.015	1.00	20.06
15	ATOM	3265	CE1	PHE	A 414	11.709	20.868	58.729	1.00	18.22
	ATOM	3266	CE2	PHE	A 414	13.861	21.205	59.771	1.00	21.10
	ATOM	3267	CZ	PHE	A 414	12.695	20.456	59.627	1.00	19.80
	ATOM	3268	N	SER	A 415	13.972	25.111	53.928	1.00	22.05
	ATOM	3269	CA	SER	A 415	13.807	26.273	53.044	1.00	23.12
20	ATOM	3270	C	SER	A 415	12.380	26.434	52.548	1.00	23.50
	ATOM	3271	O	SER	A 415	11.775	25.451	52.138	1.00	22.71
	ATOM	3272	CB	SER	A 415	14.763	26.214	51.858	1.00	23.04
	ATOM	3273	OG	SER	A 415	16.054	26.591	52.319	1.00	31.15
	ATOM	3274	N	TYR	A 416	11.860	27.670	52.600	1.00	21.68
25	ATOM	3275	CA	TYR	A 416	10.506	28.036	52.165	1.00	22.03
	ATOM	3276	C	TYR	A 416	9.401	27.514	53.056	1.00	22.90
	ATOM	3277	O	TYR	A 416	8.239	27.556	52.681	1.00	19.44
	ATOM	3278	CB	TYR	A 416	10.181	27.732	50.669	1.00	21.41
	ATOM	3279	CG	TYR	A 416	11.390	28.011	49.812	1.00	21.01
30	ATOM	3280	CD1	TYR	A 416	12.232	27.003	49.339	1.00	22.57
	ATOM	3281	CD2	TYR	A 416	11.686	29.339	49.509	1.00	20.93
	ATOM	3282	CE1	TYR	A 416	13.354	27.305	48.566	1.00	19.33
	ATOM	3283	CE2	TYR	A 416	12.792	29.665	48.729	1.00	23.16
	ATOM	3284	CZ	TYR	A 416	13.628	28.643	48.271	1.00	32.30
35	ATOM	3285	OH	TYR	A 416	14.715	28.959	47.491	1.00	25.33
	ATOM	3286	N	LYS	A 417	9.747	27.012	54.230	1.00	21.98
	ATOM	3287	CA	LYS	A 417	8.749	26.482	55.127	1.00	20.82
	ATOM	3288	C	LYS	A 417	8.702	27.284	56.408	1.00	20.61
	ATOM	3289	O	LYS	A 417	9.629	28.038	56.671	1.00	18.79
40	ATOM	3290	CB	LYS	A 417	9.115	25.041	55.481	1.00	22.26
	ATOM	3291	CG	LYS	A 417	9.094	24.078	54.266	1.00	29.52
	ATOM	3292	CD	LYS	A 417	7.999	24.355	53.237	1.00	72.37
	ATOM	3293	CE	LYS	A 417	8.204	23.679	51.876	1.00	100.00
	ATOM	3294	NZ	LYS	A 417	7.124	23.931	50.895	1.00	100.00
45	ATOM	3295	N	SER	A 418	7.645	27.068	57.177	1.00	17.88
	ATOM	3296	CA	SER	A 418	7.429	27.702	58.478	1.00	19.91
	ATOM	3297	C	SER	A 418	7.410	26.538	59.459	1.00	23.93
	ATOM	3298	O	SER	A 418	6.660	25.601	59.227	1.00	21.09
	ATOM	3299	CB	SER	A 418	6.139	28.495	58.451	1.00	12.45
50	ATOM	3300	OG	SER	A 418	6.279	29.520	57.494	1.00	17.15
	ATOM	3301	N	ILE	A 419	8.240	26.529	60.516	1.00	14.38
	ATOM	3302	CA	ILE	A 419	8.323	25.353	61.382	1.00	12.23
	ATOM	3303	C	ILE	A 419	8.330	25.695	62.841	1.00	16.49
	ATOM	3304	O	ILE	A 419	8.334	26.875	63.219	1.00	14.48
55	ATOM	3305	CB	ILE	A 419	9.662	24.641	61.097	1.00	18.50
	ATOM	3306	CG1	ILE	A 419	10.782	25.649	61.392	1.00	18.34
	ATOM	3307	CG2	ILE	A 419	9.782	24.271	59.611	1.00	14.45
	ATOM	3308	CD1	ILE	A 419	12.163	25.028	61.473	1.00	22.79
	ATOM	3309	N	THR	A 420	8.320	24.635	63.644	1.00	16.31
60	ATOM	3310	CA	THR	A 420	8.281	24.810	65.083	1.00	14.71
	ATOM	3311	C	THR	A 420	9.545	24.290	65.714	1.00	16.25
	ATOM	3312	O	THR	A 420	10.346	23.636	65.077	1.00	17.31
	ATOM	3313	CB	THR	A 420	7.118	24.004	65.697	1.00	17.59
	ATOM	3314	OG1	THR	A 420	7.437	22.645	65.519	1.00	17.59

	ATOM	3315	CG2	THR	A	420	5.794	24.260	65.010	1.00	16.45
	ATOM	3316	N	THR	A	421	9.679	24.540	67.010	1.00	15.19
	ATOM	3317	CA	THR	A	421	10.782	24.047	67.818	1.00	15.49
5	ATOM	3318	C	THR	A	421	10.930	22.520	67.618	1.00	21.17
	ATOM	3319	O	THR	A	421	12.041	22.044	67.401	1.00	18.91
	ATOM	3320	CB	THR	A	421	10.564	24.437	69.309	1.00	10.87
	ATOM	3321	OG1	THR	A	421	10.618	25.851	69.383	1.00	15.99
	ATOM	3322	CG2	THR	A	421	11.691	23.868	70.170	1.00	11.46
10	ATOM	3323	N	ASP	A	422	9.829	21.736	67.673	1.00	18.70
	ATOM	3324	CA	ASP	A	422	9.885	20.262	67.467	1.00	16.03
	ATOM	3325	C	ASP	A	422	10.469	19.867	66.107	1.00	16.08
	ATOM	3326	O	ASP	A	422	11.273	18.932	65.958	1.00	16.68
	ATOM	3327	CB	ASP	A	422	8.523	19.568	67.581	1.00	16.64
15	ATOM	3328	CG	ASP	A	422	8.719	18.079	67.574	1.00	26.85
	ATOM	3329	OD1	ASP	A	422	9.568	17.580	68.286	1.00	23.44
	ATOM	3330	OD2	ASP	A	422	7.924	17.366	66.787	1.00	23.32
	ATOM	3331	N	ASP	A	423	10.069	20.575	65.060	1.00	17.50
20	ATOM	3332	CA	ASP	A	423	10.654	20.224	63.757	1.00	18.18
	ATOM	3333	C	ASP	A	423	12.148	20.442	63.826	1.00	17.70
	ATOM	3334	O	ASP	A	423	12.922	19.645	63.316	1.00	15.95
	ATOM	3335	CB	ASP	A	423	10.099	21.075	62.613	1.00	17.77
	ATOM	3336	CG	ASP	A	423	8.614	20.972	62.510	1.00	20.51
	ATOM	3337	OD1	ASP	A	423	8.042	19.936	62.718	1.00	29.77
25	ATOM	3338	OD2	ASP	A	423	8.016	22.095	62.226	1.00	18.32
	ATOM	3339	N	TRP	A	424	12.559	21.545	64.459	1.00	12.60
	ATOM	3340	CA	TRP	A	424	13.979	21.793	64.555	1.00	14.79
	ATOM	3341	C	TRP	A	424	14.690	20.684	65.330	1.00	19.67
	ATOM	3342	O	TRP	A	424	15.731	20.154	64.939	1.00	16.84
30	ATOM	3343	CB	TRP	A	424	14.187	23.134	65.283	1.00	14.84
	ATOM	3344	CG	TRP	A	424	15.603	23.332	65.711	1.00	13.71
	ATOM	3345	CD1	TRP	A	424	16.594	23.830	64.937	1.00	15.42
	ATOM	3346	CD2	TRP	A	424	16.185	23.060	67.002	1.00	13.68
	ATOM	3347	NE1	TRP	A	424	17.765	23.853	65.640	1.00	14.21
35	ATOM	3348	CE2	TRP	A	424	17.558	23.383	66.909	1.00	13.75
	ATOM	3349	CE3	TRP	A	424	15.684	22.576	68.210	1.00	16.53
	ATOM	3350	CZ2	TRP	A	424	18.436	23.247	67.983	1.00	13.89
	ATOM	3351	CZ3	TRP	A	424	16.564	22.434	69.288	1.00	16.24
	ATOM	3352	CH2	TRP	A	424	17.919	22.786	69.175	1.00	15.55
40	ATOM	3353	N	LYS	A	425	14.139	20.328	66.480	1.00	13.83
	ATOM	3354	CA	LYS	A	425	14.778	19.337	67.319	1.00	14.35
	ATOM	3355	C	LYS	A	425	14.705	17.914	66.753	1.00	19.43
	ATOM	3356	O	LYS	A	425	15.619	17.089	66.910	1.00	16.20
	ATOM	3357	CB	LYS	A	425	14.262	19.441	68.735	1.00	13.53
45	ATOM	3358	CG	LYS	A	425	14.912	18.488	69.720	1.00	14.17
	ATOM	3359	CD	LYS	A	425	14.289	18.698	71.085	1.00	14.61
	ATOM	3360	CE	LYS	A	425	14.214	17.413	71.872	1.00	33.75
	ATOM	3361	NZ	LYS	A	425	12.961	16.707	71.574	1.00	28.69
	ATOM	3362	N	ASP	A	426	13.591	17.633	66.093	1.00	17.34
50	ATOM	3363	CA	ASP	A	426	13.430	16.341	65.480	1.00	15.98
	ATOM	3364	C	ASP	A	426	14.524	16.256	64.383	1.00	23.28
	ATOM	3365	O	ASP	A	426	15.177	15.246	64.128	1.00	25.50
	ATOM	3366	CB	ASP	A	426	11.987	16.225	64.918	1.00	13.29
	ATOM	3367	CG	ASP	A	426	10.984	15.900	65.989	1.00	14.86
55	ATOM	3368	OD1	ASP	A	426	11.296	15.712	67.147	1.00	19.08
	ATOM	3369	OD2	ASP	A	426	9.746	15.852	65.579	1.00	18.33
	ATOM	3370	N	PHE	A	427	14.770	17.354	63.684	1.00	20.60
	ATOM	3371	CA	PHE	A	427	15.789	17.331	62.633	1.00	20.61
	ATOM	3372	C	PHE	A	427	17.203	17.172	63.165	1.00	26.34
60	ATOM	3373	O	PHE	A	427	18.056	16.476	62.592	1.00	22.98
	ATOM	3374	CB	PHE	A	427	15.712	18.535	61.679	1.00	20.77
	ATOM	3375	CG	PHE	A	427	16.772	18.432	60.611	1.00	24.06
	ATOM	3376	CD1	PHE	A	427	16.747	17.398	59.674	1.00	27.11
	ATOM	3377	CD2	PHE	A	427	17.815	19.355	60.549	1.00	24.52
	ATOM	3378	CE1	PHE	A	427	17.726	17.312	58.685	1.00	27.68

	ATOM	3379	CE2	PHE	A	427	18.801	19.284	59.565	1.00	28.65
	ATOM	3380	CZ	PHE	A	427	18.756	18.254	58.629	1.00	24.74
	ATOM	3381	N	LEU	A	428	17.417	17.848	64.291	1.00	22.50
	ATOM	3382	CA	LEU	A	428	18.686	17.827	64.979	1.00	24.10
5	ATOM	3383	C	LEU	A	428	19.053	16.391	65.339	1.00	22.01
	ATOM	3384	O	LEU	A	428	20.183	15.960	65.123	1.00	23.99
	ATOM	3385	CB	LEU	A	428	18.685	18.806	66.186	1.00	23.18
	ATOM	3386	CG	LEU	A	428	19.949	18.790	67.054	1.00	26.21
	ATOM	3387	CD1	LEU	A	428	21.120	19.538	66.421	1.00	25.09
10	ATOM	3388	CD2	LEU	A	428	19.659	19.334	68.459	1.00	21.07
	ATOM	3389	N	TYR	A	429	18.087	15.650	65.866	1.00	16.35
	ATOM	3390	CA	TYR	A	429	18.278	14.259	66.241	1.00	15.82
	ATOM	3391	C	TYR	A	429	18.482	13.390	65.019	1.00	20.80
	ATOM	3392	O	TYR	A	429	19.216	12.416	64.997	1.00	21.02
15	ATOM	3393	CB	TYR	A	429	17.037	13.759	66.940	1.00	14.93
	ATOM	3394	CG	TYR	A	429	17.232	13.841	68.426	1.00	19.52
	ATOM	3395	CD1	TYR	A	429	16.999	15.039	69.104	1.00	18.07
	ATOM	3396	CD2	TYR	A	429	17.667	12.710	69.121	1.00	17.20
	ATOM	3397	CE1	TYR	A	429	17.183	15.108	70.484	1.00	14.78
20	ATOM	3398	CE2	TYR	A	429	17.850	12.752	70.496	1.00	15.85
	ATOM	3399	CZ	TYR	A	429	17.615	13.961	71.157	1.00	26.56
	ATOM	3400	OH	TYR	A	429	17.807	14.009	72.508	1.00	23.93
	ATOM	3401	N	SER	A	430	17.839	13.785	63.955	1.00	18.00
	ATOM	3402	CA	SER	A	430	17.986	13.048	62.735	1.00	20.34
25	ATOM	3403	C	SER	A	430	19.392	13.282	62.136	1.00	28.86
	ATOM	3404	O	SER	A	430	20.133	12.347	61.797	1.00	25.84
	ATOM	3405	CB	SER	A	430	16.843	13.486	61.845	1.00	19.64
	ATOM	3406	OG	SER	A	430	16.960	12.766	60.657	1.00	32.88
	ATOM	3407	N	TYR	A	431	19.792	14.556	62.021	1.00	23.08
30	ATOM	3408	CA	TYR	A	431	21.104	14.862	61.497	1.00	23.26
	ATOM	3409	C	TYR	A	431	22.209	14.166	62.288	1.00	31.19
	ATOM	3410	O	TYR	A	431	23.152	13.580	61.747	1.00	27.84
	ATOM	3411	CB	TYR	A	431	21.392	16.372	61.476	1.00	22.23
	ATOM	3412	CG	TYR	A	431	22.660	16.758	60.741	1.00	23.21
35	ATOM	3413	CD1	TYR	A	431	22.665	16.994	59.365	1.00	26.21
	ATOM	3414	CD2	TYR	A	431	23.864	16.920	61.433	1.00	28.30
	ATOM	3415	CE1	TYR	A	431	23.836	17.354	58.692	1.00	33.33
	ATOM	3416	CE2	TYR	A	431	25.045	17.277	60.777	1.00	29.03
	ATOM	3417	CZ	TYR	A	431	25.032	17.498	59.401	1.00	33.73
40	ATOM	3418	OH	TYR	A	431	26.201	17.881	58.802	1.00	30.59
	ATOM	3419	N	PHE	A	432	22.078	14.272	63.608	1.00	23.42
	ATOM	3420	CA	PHE	A	432	23.039	13.735	64.556	1.00	22.14
	ATOM	3421	C	PHE	A	432	22.659	12.334	65.001	1.00	27.48
	ATOM	3422	O	PHE	A	432	22.824	11.964	66.168	1.00	20.81
45	ATOM	3423	CB	PHE	A	432	23.211	14.715	65.751	1.00	20.76
	ATOM	3424	CG	PHE	A	432	24.035	15.918	65.348	1.00	21.62
	ATOM	3425	CD1	PHE	A	432	25.364	15.674	65.025	1.00	25.75
	ATOM	3426	CD2	PHE	A	432	23.566	17.232	65.250	1.00	22.01
	ATOM	3427	CE1	PHE	A	432	26.202	16.708	64.619	1.00	26.06
50	ATOM	3428	CE2	PHE	A	432	24.398	18.277	64.841	1.00	24.06
	ATOM	3429	CZ	PHE	A	432	25.732	18.014	64.539	1.00	22.97
	ATOM	3430	N	LYS	A	433	22.150	11.536	64.065	1.00	30.29
	ATOM	3431	CA	LYS	A	433	21.757	10.205	64.480	1.00	33.97
55	ATOM	3432	C	LYS	A	433	22.886	9.408	65.113	1.00	40.77
	ATOM	3433	O	LYS	A	433	22.690	8.545	65.964	1.00	45.44
	ATOM	3434	CB	LYS	A	433	21.017	9.429	63.418	1.00	41.36
	ATOM	3435	CG	LYS	A	433	21.934	9.107	62.270	1.00	42.12
	ATOM	3436	CD	LYS	A	433	21.340	9.569	60.951	1.00	85.11
	ATOM	3437	CE	LYS	A	433	21.770	8.690	59.784	1.00	100.00
60	ATOM	3438	NZ	LYS	A	433	21.052	8.990	58.530	1.00	100.00
	ATOM	3439	N	ASP	A	434	24.091	9.729	64.700	1.00	38.33
	ATOM	3440	CA	ASP	A	434	25.295	9.086	65.188	1.00	40.98
	ATOM	3441	C	ASP	A	434	25.640	9.549	66.594	1.00	42.43
	ATOM	3442	O	ASP	A	434	26.508	8.979	67.241	1.00	42.35

	ATOM	3443	CB	ASP	A	434	26.493	9.429	64.250	1.00	47.81
	ATOM	3444	CG	ASP	A	434	26.762	10.919	64.034	1.00	73.28
	ATOM	3445	OD1	ASP	A	434	25.948	11.739	63.601	1.00	69.11
5	ATOM	3446	OD2	ASP	A	434	28.007	11.242	64.314	1.00	80.38
	ATOM	3447	N	LYS	A	435	24.987	10.601	67.068	1.00	33.72
	ATOM	3448	CA	LYS	A	435	25.312	11.120	68.374	1.00	30.49
	ATOM	3449	C	LYS	A	435	24.122	11.247	69.306	1.00	32.57
	ATOM	3450	O	LYS	A	435	24.181	12.067	70.217	1.00	29.28
10	ATOM	3451	CB	LYS	A	435	26.018	12.465	68.200	1.00	30.20
	ATOM	3452	CG	LYS	A	435	27.396	12.351	67.568	1.00	19.40
	ATOM	3453	CD	LYS	A	435	27.984	13.718	67.237	1.00	28.53
	ATOM	3454	CE	LYS	A	435	29.504	13.723	67.224	1.00	36.05
	ATOM	3455	NZ	LYS	A	435	30.078	14.696	66.281	1.00	38.07
15	ATOM	3456	N	VAL	A	436	23.063	10.467	69.083	1.00	32.65
	ATOM	3457	CA	VAL	A	436	21.867	10.565	69.920	1.00	36.68
	ATOM	3458	C	VAL	A	436	22.189	10.528	71.391	1.00	39.39
	ATOM	3459	O	VAL	A	436	21.544	11.154	72.236	1.00	34.16
	ATOM	3460	CB	VAL	A	436	20.768	9.553	69.613	1.00	44.95
20	ATOM	3461	CG1	VAL	A	436	20.016	9.971	68.355	1.00	45.77
	ATOM	3462	CG2	VAL	A	436	21.391	8.187	69.405	1.00	48.21
	ATOM	3463	N	ASP	A	437	23.205	9.740	71.670	1.00	40.66
	ATOM	3464	CA	ASP	A	437	23.663	9.569	73.019	1.00	39.64
	ATOM	3465	C	ASP	A	437	24.119	10.875	73.622	1.00	35.59
25	ATOM	3466	O	ASP	A	437	23.871	11.128	74.785	1.00	36.38
	ATOM	3467	CB	ASP	A	437	24.686	8.437	73.136	1.00	42.27
	ATOM	3468	CG	ASP	A	437	23.976	7.123	73.303	1.00	64.05
	ATOM	3469	OD1	ASP	A	437	22.749	7.018	73.361	1.00	57.77
	ATOM	3470	OD2	ASP	A	437	24.825	6.121	73.385	1.00	89.95
30	ATOM	3471	N	VAL	A	438	24.778	11.697	72.826	1.00	33.10
	ATOM	3472	CA	VAL	A	438	25.235	12.988	73.309	1.00	31.59
	ATOM	3473	C	VAL	A	438	24.012	13.879	73.521	1.00	28.65
	ATOM	3474	O	VAL	A	438	23.828	14.461	74.571	1.00	26.75
	ATOM	3475	CB	VAL	A	438	26.289	13.599	72.371	1.00	30.58
35	ATOM	3476	CG1	VAL	A	438	26.809	14.928	72.920	1.00	27.87
	ATOM	3477	CG2	VAL	A	438	27.441	12.608	72.226	1.00	29.01
	ATOM	3478	N	LEU	A	439	23.179	13.926	72.494	1.00	22.69
	ATOM	3479	CA	LEU	A	439	21.952	14.698	72.466	1.00	20.02
	ATOM	3480	C	LEU	A	439	21.118	14.396	73.675	1.00	28.06
40	ATOM	3481	O	LEU	A	439	20.547	15.279	74.289	1.00	31.30
	ATOM	3482	CB	LEU	A	439	21.125	14.403	71.201	1.00	17.24
	ATOM	3483	CG	LEU	A	439	21.769	15.002	69.960	1.00	19.41
	ATOM	3484	CD1	LEU	A	439	21.029	14.542	68.724	1.00	16.82
	ATOM	3485	CD2	LEU	A	439	21.748	16.528	70.034	1.00	23.96
45	ATOM	3486	N	ASN	A	440	21.045	13.129	74.022	1.00	24.23
	ATOM	3487	CA	ASN	A	440	20.242	12.765	75.165	1.00	24.80
	ATOM	3488	C	ASN	A	440	20.785	13.294	76.473	1.00	29.26
	ATOM	3489	O	ASN	A	440	20.128	13.233	77.507	1.00	31.02
	ATOM	3490	CB	ASN	A	440	19.842	11.275	75.237	1.00	28.06
50	ATOM	3491	CG	ASN	A	440	18.971	10.884	74.066	1.00	29.31
	ATOM	3492	OD1	ASN	A	440	19.138	9.820	73.451	1.00	40.12
	ATOM	3493	ND2	ASN	A	440	18.058	11.773	73.721	1.00	28.40
	ATOM	3494	N	GLN	A	441	21.984	13.833	76.434	1.00	26.30
	ATOM	3495	CA	GLN	A	441	22.535	14.361	77.656	1.00	27.26
55	ATOM	3496	C	GLN	A	441	22.022	15.764	77.912	1.00	26.46
	ATOM	3497	O	GLN	A	441	22.203	16.336	78.988	1.00	25.27
	ATOM	3498	CB	GLN	A	441	24.073	14.404	77.609	1.00	32.14
	ATOM	3499	CG	GLN	A	441	24.762	13.016	77.641	1.00	49.60
	ATOM	3500	CD	GLN	A	441	26.057	13.019	76.850	1.00	66.63
60	ATOM	3501	OE1	GLN	A	441	26.546	11.975	76.382	1.00	76.27
	ATOM	3502	NE2	GLN	A	441	26.608	14.217	76.676	1.00	56.68
	ATOM	3503	N	VAL	A	442	21.388	16.345	76.909	1.00	21.59
	ATOM	3504	CA	VAL	A	442	20.922	17.688	77.159	1.00	18.91
	ATOM	3505	C	VAL	A	442	19.615	17.729	77.897	1.00	19.52
	ATOM	3506	O	VAL	A	442	18.742	16.908	77.650	1.00	21.02

	ATOM	3507	CB	VAL	A	442	20.898	18.538	75.917	1.00	19.77
	ATOM	3508	CG1	VAL	A	442	21.472	17.891	74.680	1.00	23.00
	ATOM	3509	CG2	VAL	A	442	19.787	19.580	75.787	1.00	13.26
5	ATOM	3510	N	ASP	A	443	19.490	18.677	78.811	1.00	17.20
	ATOM	3511	CA	ASP	A	443	18.243	18.856	79.551	1.00	16.44
	ATOM	3512	C	ASP	A	443	17.277	19.752	78.727	1.00	17.64
	ATOM	3513	O	ASP	A	443	17.091	20.980	78.921	1.00	15.06
	ATOM	3514	CB	ASP	A	443	18.611	19.494	80.901	1.00	17.40
10	ATOM	3515	CG	ASP	A	443	17.422	19.595	81.778	1.00	21.50
	ATOM	3516	OD1	ASP	A	443	16.309	19.286	81.395	1.00	26.57
	ATOM	3517	OD2	ASP	A	443	17.731	20.068	82.959	1.00	23.49
	ATOM	3518	N	TRP	A	444	16.675	19.105	77.736	1.00	15.54
	ATOM	3519	CA	TRP	A	444	15.763	19.759	76.816	1.00	16.92
	ATOM	3520	C	TRP	A	444	14.641	20.468	77.546	1.00	19.29
15	ATOM	3521	O	TRP	A	444	14.292	21.572	77.194	1.00	18.00
	ATOM	3522	CB	TRP	A	444	15.195	18.747	75.793	1.00	13.71
	ATOM	3523	CG	TRP	A	444	16.267	18.226	74.892	1.00	14.88
	ATOM	3524	CD1	TRP	A	444	16.797	16.969	74.872	1.00	17.32
20	ATOM	3525	CD2	TRP	A	444	16.952	18.958	73.861	1.00	16.34
	ATOM	3526	NE1	TRP	A	444	17.779	16.869	73.915	1.00	14.83
	ATOM	3527	CE2	TRP	A	444	17.880	18.063	73.255	1.00	16.96
	ATOM	3528	CE3	TRP	A	444	16.896	20.295	73.415	1.00	17.06
	ATOM	3529	CZ2	TRP	A	444	18.737	18.482	72.229	1.00	16.95
	ATOM	3530	CZ3	TRP	A	444	17.750	20.697	72.382	1.00	16.35
25	ATOM	3531	CH2	TRP	A	444	18.664	19.807	71.806	1.00	16.47
	ATOM	3532	N	ASN	A	445	14.059	19.808	78.557	1.00	18.46
	ATOM	3533	CA	ASN	A	445	12.957	20.414	79.260	1.00	17.22
	ATOM	3534	C	ASN	A	445	13.334	21.761	79.837	1.00	20.45
30	ATOM	3535	O	ASN	A	445	12.581	22.732	79.740	1.00	17.51
	ATOM	3536	CB	ASN	A	445	12.347	19.512	80.357	1.00	15.11
	ATOM	3537	CG	ASN	A	445	11.322	20.272	81.234	1.00	46.40
	ATOM	3538	OD1	ASN	A	445	11.526	20.515	82.448	1.00	39.99
	ATOM	3539	ND2	ASN	A	445	10.198	20.671	80.643	1.00	26.34
35	ATOM	3540	N	ALA	A	446	14.504	21.791	80.484	1.00	18.70
	ATOM	3541	CA	ALA	A	446	14.918	23.022	81.091	1.00	16.75
	ATOM	3542	C	ALA	A	446	15.272	24.029	80.032	1.00	21.46
	ATOM	3543	O	ALA	A	446	14.765	25.172	80.030	1.00	20.55
	ATOM	3544	CB	ALA	A	446	16.049	22.774	82.055	1.00	19.42
40	ATOM	3545	N	TRP	A	447	16.116	23.605	79.097	1.00	16.36
	ATOM	3546	CA	TRP	A	447	16.476	24.563	78.054	1.00	14.85
	ATOM	3547	C	TRP	A	447	15.277	25.163	77.279	1.00	18.68
	ATOM	3548	O	TRP	A	447	15.246	26.365	76.985	1.00	14.03
	ATOM	3549	CB	TRP	A	447	17.473	23.938	77.040	1.00	17.25
45	ATOM	3550	CG	TRP	A	447	18.952	23.982	77.391	1.00	19.35
	ATOM	3551	CD1	TRP	A	447	19.697	22.957	77.930	1.00	22.25
	ATOM	3552	CD2	TRP	A	447	19.864	25.090	77.224	1.00	16.70
	ATOM	3553	NE1	TRP	A	447	21.007	23.356	78.105	1.00	19.46
	ATOM	3554	CE2	TRP	A	447	21.131	24.662	77.679	1.00	18.42
50	ATOM	3555	CE3	TRP	A	447	19.737	26.403	76.766	1.00	16.34
	ATOM	3556	CZ2	TRP	A	447	22.241	25.512	77.625	1.00	16.76
	ATOM	3557	CZ3	TRP	A	447	20.854	27.230	76.705	1.00	14.87
	ATOM	3558	CH2	TRP	A	447	22.090	26.786	77.141	1.00	14.22
	ATOM	3559	N	LEU	A	448	14.275	24.336	76.899	1.00	14.96
55	ATOM	3560	CA	LEU	A	448	13.146	24.835	76.096	1.00	16.27
	ATOM	3561	C	LEU	A	448	11.995	25.464	76.877	1.00	17.91
	ATOM	3562	O	LEU	A	448	11.332	26.404	76.398	1.00	13.49
	ATOM	3563	CB	LEU	A	448	12.522	23.690	75.238	1.00	16.42
	ATOM	3564	CG	LEU	A	448	13.500	22.945	74.302	1.00	16.43
60	ATOM	3565	CD1	LEU	A	448	12.845	21.795	73.536	1.00	15.65
	ATOM	3566	CD2	LEU	A	448	14.163	23.901	73.315	1.00	12.87
	ATOM	3567	N	TYR	A	449	11.733	24.874	78.048	1.00	15.32
	ATOM	3568	CA	TYR	A	449	10.557	25.255	78.826	1.00	15.36
	ATOM	3569	C	TYR	A	449	10.763	25.822	80.198	1.00	19.93
	ATOM	3570	O	TYR	A	449	9.763	26.226	80.806	1.00	21.29

	ATOM	3571	CB	TYR	A	449	9.611	24.031	78.983	1.00	14.65
	ATOM	3572	CG	TYR	A	449	9.473	23.315	77.667	1.00	17.69
	ATOM	3573	CD1	TYR	A	449	9.117	24.048	76.533	1.00	22.12
5	ATOM	3574	CD2	TYR	A	449	9.771	21.958	77.541	1.00	19.27
	ATOM	3575	CE1	TYR	A	449	9.010	23.432	75.286	1.00	21.15
	ATOM	3576	CE2	TYR	A	449	9.669	21.318	76.301	1.00	18.29
	ATOM	3577	CZ	TYR	A	449	9.301	22.070	75.183	1.00	25.71
	ATOM	3578	OH	TYR	A	449	9.216	21.480	73.951	1.00	26.15
10	ATOM	3579	N	SER	A	450	11.985	25.806	80.724	1.00	15.79
	ATOM	3580	CA	SER	A	450	12.156	26.362	82.061	1.00	14.12
	ATOM	3581	C	SER	A	450	12.474	27.864	82.025	1.00	16.42
	ATOM	3582	O	SER	A	450	13.127	28.340	81.109	1.00	15.32
	ATOM	3583	CB	SER	A	450	13.136	25.567	82.938	1.00	20.04
	ATOM	3584	OG	SER	A	450	12.687	24.254	83.189	1.00	16.61
15	ATOM	3585	N	PRO	A	451	11.995	28.645	83.014	1.00	14.16
	ATOM	3586	CA	PRO	A	451	12.287	30.052	83.032	1.00	12.96
	ATOM	3587	C	PRO	A	451	13.696	30.228	83.581	1.00	15.11
	ATOM	3588	O	PRO	A	451	14.347	29.259	83.997	1.00	15.64
20	ATOM	3589	CB	PRO	A	451	11.274	30.669	84.029	1.00	11.76
	ATOM	3590	CG	PRO	A	451	10.903	29.560	84.988	1.00	16.01
	ATOM	3591	CD	PRO	A	451	11.298	28.259	84.288	1.00	15.25
	ATOM	3592	N	GLY	A	452	14.148	31.481	83.586	1.00	12.85
	ATOM	3593	CA	GLY	A	452	15.430	31.822	84.160	1.00	12.46
25	ATOM	3594	C	GLY	A	452	16.652	31.517	83.311	1.00	17.53
	ATOM	3595	O	GLY	A	452	16.559	31.320	82.117	1.00	14.38
	ATOM	3596	N	LEU	A	453	17.839	31.539	83.926	1.00	17.18
	ATOM	3597	CA	LEU	A	453	19.054	31.268	83.196	1.00	14.53
	ATOM	3598	C	LEU	A	453	19.087	29.819	82.762	1.00	14.71
	ATOM	3599	O	LEU	A	453	18.523	28.978	83.456	1.00	16.06
30	ATOM	3600	CB	LEU	A	453	20.296	31.588	84.031	1.00	14.09
	ATOM	3601	CG	LEU	A	453	20.526	33.091	84.216	1.00	18.81
	ATOM	3602	CD1	LEU	A	453	21.635	33.253	85.247	1.00	16.98
	ATOM	3603	CD2	LEU	A	453	21.001	33.761	82.919	1.00	21.45
	ATOM	3604	N	PRO	A	454	19.770	29.537	81.637	1.00	15.62
35	ATOM	3605	CA	PRO	A	454	19.907	28.194	81.119	1.00	15.68
	ATOM	3606	C	PRO	A	454	20.486	27.258	82.170	1.00	21.35
	ATOM	3607	O	PRO	A	454	21.236	27.662	83.039	1.00	21.73
	ATOM	3608	CB	PRO	A	454	20.918	28.317	79.965	1.00	16.56
40	ATOM	3609	CG	PRO	A	454	20.906	29.751	79.501	1.00	16.74
	ATOM	3610	CD	PRO	A	454	20.290	30.524	80.640	1.00	15.71
	ATOM	3611	N	PRO	A	455	20.146	25.978	82.079	1.00	16.53
	ATOM	3612	CA	PRO	A	455	20.619	24.976	83.005	1.00	16.33
	ATOM	3613	C	PRO	A	455	22.146	24.834	83.016	1.00	25.51
	ATOM	3614	O	PRO	A	455	22.718	24.370	83.999	1.00	24.17
45	ATOM	3615	CB	PRO	A	455	19.999	23.666	82.520	1.00	17.40
	ATOM	3616	CG	PRO	A	455	19.523	23.888	81.094	1.00	21.81
	ATOM	3617	CD	PRO	A	455	19.403	25.389	80.932	1.00	19.90
	ATOM	3618	N	ILE	A	456	22.816	25.205	81.916	1.00	20.88
50	ATOM	3619	CA	ILE	A	456	24.262	25.117	81.810	1.00	17.40
	ATOM	3620	C	ILE	A	456	24.822	26.292	81.000	1.00	19.27
	ATOM	3621	O	ILE	A	456	24.191	26.798	80.064	1.00	17.96
	ATOM	3622	CB	ILE	A	456	24.675	23.737	81.316	1.00	23.45
	ATOM	3623	CG1	ILE	A	456	26.173	23.543	81.456	1.00	27.66
55	ATOM	3624	CG2	ILE	A	456	24.285	23.529	79.865	1.00	26.37
	ATOM	3625	CD1	ILE	A	456	26.571	22.167	80.951	1.00	35.97
	ATOM	3626	N	LYS	A	457	26.011	26.772	81.383	1.00	15.81
	ATOM	3627	CA	LYS	A	457	26.649	27.883	80.697	1.00	17.12
	ATOM	3628	C	LYS	A	457	27.727	27.333	79.815	1.00	18.91
60	ATOM	3629	O	LYS	A	457	28.541	26.562	80.281	1.00	17.84
	ATOM	3630	CB	LYS	A	457	27.308	28.793	81.727	1.00	16.24
	ATOM	3631	CG	LYS	A	457	27.896	30.067	81.130	1.00	16.93
	ATOM	3632	CD	LYS	A	457	28.245	31.062	82.227	1.00	10.77
	ATOM	3633	CE	LYS	A	457	28.785	32.347	81.659	1.00	11.49
	ATOM	3634	NZ	LYS	A	457	29.467	33.164	82.683	1.00	18.20



	ATOM	3635	N	PRO A 458	27.733	27.708	78.558	1.00	15.31
	ATOM	3636	CA	PRO A 458	28.780	27.205	77.655	1.00	13.94
	ATOM	3637	C	PRO A 458	30.169	27.681	78.096	1.00	16.97
5	ATOM	3638	O	PRO A 458	30.341	28.456	79.036	1.00	14.39
	ATOM	3639	CB	PRO A 458	28.465	27.835	76.274	1.00	13.66
	ATOM	3640	CG	PRO A 458	27.036	28.364	76.363	1.00	14.88
	ATOM	3641	CD	PRO A 458	26.702	28.535	77.855	1.00	10.08
	ATOM	3642	N	ASN A 459	31.199	27.223	77.408	1.00	17.07
10	ATOM	3643	CA	ASN A 459	32.546	27.672	77.722	1.00	15.61
	ATOM	3644	C	ASN A 459	32.924	28.839	76.793	1.00	22.19
	ATOM	3645	O	ASN A 459	32.647	28.812	75.578	1.00	20.83
	ATOM	3646	CB	ASN A 459	33.580	26.559	77.455	1.00	19.60
	ATOM	3647	CG	ASN A 459	33.158	25.288	78.136	1.00	26.10
	ATOM	3648	OD1	ASN A 459	32.952	25.278	79.347	1.00	25.15
15	ATOM	3649	ND2	ASN A 459	32.972	24.236	77.361	1.00	24.39
	ATOM	3650	N	TYR A 460	33.620	29.849	77.341	1.00	13.51
	ATOM	3651	CA	TYR A 460	34.021	30.994	76.536	1.00	14.52
	ATOM	3652	C	TYR A 460	35.485	31.370	76.683	1.00	16.97
	ATOM	3653	O	TYR A 460	36.003	31.442	77.802	1.00	13.34
20	ATOM	3654	CB	TYR A 460	33.266	32.254	76.990	1.00	12.53
	ATOM	3655	CG	TYR A 460	31.764	32.129	76.980	1.00	13.07
	ATOM	3656	CD1	TYR A 460	31.070	31.553	78.046	1.00	17.79
	ATOM	3657	CD2	TYR A 460	31.043	32.584	75.880	1.00	12.08
25	ATOM	3658	CE1	TYR A 460	29.677	31.450	78.049	1.00	16.54
	ATOM	3659	CE2	TYR A 460	29.654	32.477	75.861	1.00	11.82
	ATOM	3660	CZ	TYR A 460	28.971	31.911	76.938	1.00	16.71
	ATOM	3661	OH	TYR A 460	27.589	31.834	76.894	1.00	15.52
	ATOM	3662	N	ASP A 461	36.098	31.706	75.558	1.00	13.99
30	ATOM	3663	CA	ASP A 461	37.463	32.218	75.579	1.00	13.74
	ATOM	3664	C	ASP A 461	37.414	33.608	76.255	1.00	16.51
	ATOM	3665	O	ASP A 461	36.516	34.415	75.966	1.00	15.04
	ATOM	3666	CB	ASP A 461	37.968	32.336	74.133	1.00	12.98
	ATOM	3667	CG	ASP A 461	39.393	32.801	74.148	1.00	25.31
	ATOM	3668	OD1	ASP A 461	40.335	32.064	74.314	1.00	40.40
35	ATOM	3669	OD2	ASP A 461	39.520	34.087	74.051	1.00	19.41
	ATOM	3670	N	MET A 462	38.339	33.887	77.191	1.00	12.14
	ATOM	3671	CA	MET A 462	38.359	35.144	77.928	1.00	9.92
	ATOM	3672	C	MET A 462	39.312	36.203	77.406	1.00	15.43
	ATOM	3673	O	MET A 462	39.413	37.265	77.958	1.00	15.61
40	ATOM	3674	CB	MET A 462	38.688	34.910	79.404	1.00	9.27
	ATOM	3675	CG	MET A 462	37.716	33.909	79.977	1.00	13.43
	ATOM	3676	SD	MET A 462	36.053	34.635	80.074	1.00	19.12
	ATOM	3677	CE	MET A 462	36.505	35.919	81.264	1.00	17.88
	ATOM	3678	N	THR A 463	40.037	35.922	76.347	1.00	13.87
45	ATOM	3679	CA	THR A 463	41.004	36.860	75.849	1.00	12.21
	ATOM	3680	C	THR A 463	40.675	38.339	75.910	1.00	16.34
	ATOM	3681	O	THR A 463	41.365	39.106	76.567	1.00	16.05
	ATOM	3682	CB	THR A 463	41.595	36.434	74.489	1.00	17.83
	ATOM	3683	OG1	THR A 463	41.940	35.051	74.538	1.00	14.22
50	ATOM	3684	CG2	THR A 463	42.841	37.298	74.204	1.00	15.70
	ATOM	3685	N	LEU A 464	39.679	38.762	75.136	1.00	14.21
	ATOM	3686	CA	LEU A 464	39.262	40.154	75.060	1.00	13.52
	ATOM	3687	C	LEU A 464	38.408	40.679	76.228	1.00	12.70
	ATOM	3688	O	LEU A 464	38.259	41.881	76.442	1.00	15.39
55	ATOM	3689	CB	LEU A 464	38.508	40.348	73.725	1.00	13.87
	ATOM	3690	CG	LEU A 464	39.363	40.009	72.495	1.00	18.04
	ATOM	3691	CD1	LEU A 464	38.448	40.076	71.260	1.00	14.36
	ATOM	3692	CD2	LEU A 464	40.490	41.054	72.345	1.00	17.86
	ATOM	3693	N	THR A 465	37.808	39.770	76.979	1.00	11.81
60	ATOM	3694	CA	THR A 465	36.946	40.116	78.103	1.00	10.62
	ATOM	3695	C	THR A 465	37.728	40.487	79.360	1.00	17.70
	ATOM	3696	O	THR A 465	37.361	41.359	80.131	1.00	15.35
	ATOM	3697	CB	THR A 465	35.996	38.934	78.368	1.00	12.56
	ATOM	3698	OG1	THR A 465	35.209	38.765	77.199	1.00	16.68

	ATOM	3699	CG2	THR	A	465	35.075	39.241	79.545	1.00	17.17
	ATOM	3700	N	ASN	A	466	38.828	39.785	79.584	1.00	14.17
	ATOM	3701	CA	ASN	A	466	39.639	40.017	80.738	1.00	14.86
5	ATOM	3702	C	ASN	A	466	39.933	41.491	81.017	1.00	16.02
	ATOM	3703	O	ASN	A	466	39.843	41.892	82.177	1.00	17.05
	ATOM	3704	CB	ASN	A	466	40.942	39.197	80.694	1.00	14.48
	ATOM	3705	CG	ASN	A	466	40.787	37.705	80.932	1.00	22.10
	ATOM	3706	OD1	ASN	A	466	41.539	36.878	80.386	1.00	21.72
10	ATOM	3707	ND2	ASN	A	466	39.925	37.356	81.852	1.00	11.12
	ATOM	3708	N	ALA	A	467	40.313	42.307	80.012	1.00	16.17
	ATOM	3709	CA	ALA	A	467	40.614	43.704	80.336	1.00	16.10
	ATOM	3710	C	ALA	A	467	39.394	44.448	80.871	1.00	20.19
	ATOM	3711	O	ALA	A	467	39.488	45.363	81.722	1.00	17.63
	ATOM	3712	CB	ALA	A	467	41.159	44.411	79.118	1.00	14.71
15	ATOM	3713	N	CYS	A	468	38.227	44.022	80.343	1.00	15.87
	ATOM	3714	CA	CYS	A	468	36.938	44.608	80.712	1.00	13.86
	ATOM	3715	C	CYS	A	468	36.609	44.369	82.167	1.00	15.16
	ATOM	3716	O	CYS	A	468	36.229	45.234	82.931	1.00	17.79
	ATOM	3717	CB	CYS	A	468	35.820	44.045	79.808	1.00	11.73
20	ATOM	3718	SG	CYS	A	468	36.215	44.458	78.102	1.00	15.87
	ATOM	3719	N	ILE	A	469	36.811	43.145	82.571	1.00	13.83
	ATOM	3720	CA	ILE	A	469	36.531	42.747	83.941	1.00	11.80
	ATOM	3721	C	ILE	A	469	37.488	43.393	84.910	1.00	16.06
	ATOM	3722	O	ILE	A	469	37.076	43.848	85.970	1.00	18.22
25	ATOM	3723	CB	ILE	A	469	36.659	41.230	84.042	1.00	15.30
	ATOM	3724	CG1	ILE	A	469	35.527	40.557	83.263	1.00	19.73
	ATOM	3725	CG2	ILE	A	469	36.688	40.791	85.497	1.00	11.46
	ATOM	3726	CD1	ILE	A	469	35.788	39.073	82.977	1.00	25.13
	ATOM	3727	N	ALA	A	470	38.776	43.375	84.572	1.00	12.77
30	ATOM	3728	CA	ALA	A	470	39.729	43.967	85.475	1.00	11.93
	ATOM	3729	C	ALA	A	470	39.304	45.404	85.786	1.00	14.05
	ATOM	3730	O	ALA	A	470	39.264	45.860	86.941	1.00	15.14
	ATOM	3731	CB	ALA	A	470	41.078	43.982	84.759	1.00	12.54
	ATOM	3732	N	LEU	A	471	38.979	46.120	84.708	1.00	15.25
35	ATOM	3733	CA	LEU	A	471	38.585	47.538	84.796	1.00	13.62
	ATOM	3734	C	LEU	A	471	37.257	47.792	85.510	1.00	17.64
	ATOM	3735	O	LEU	A	471	37.144	48.630	86.411	1.00	13.08
	ATOM	3736	CB	LEU	A	471	38.685	48.274	83.442	1.00	11.79
	ATOM	3737	CG	LEU	A	471	38.684	49.803	83.614	1.00	15.97
40	ATOM	3738	CD1	LEU	A	471	39.855	50.262	84.497	1.00	12.47
	ATOM	3739	CD2	LEU	A	471	38.753	50.493	82.248	1.00	17.27
	ATOM	3740	N	SER	A	472	36.220	47.049	85.137	1.00	14.37
	ATOM	3741	CA	SER	A	472	34.963	47.264	85.808	1.00	11.84
	ATOM	3742	C	SER	A	472	35.082	46.900	87.284	1.00	18.13
45	ATOM	3743	O	SER	A	472	34.533	47.581	88.145	1.00	16.29
	ATOM	3744	CB	SER	A	472	33.822	46.488	85.153	1.00	12.21
	ATOM	3745	OG	SER	A	472	34.090	45.121	85.240	1.00	18.74
	ATOM	3746	N	GLN	A	473	35.761	45.804	87.615	1.00	12.67
	ATOM	3747	CA	GLN	A	473	35.886	45.455	89.028	1.00	10.49
50	ATOM	3748	C	GLN	A	473	36.615	46.538	89.813	1.00	12.50
	ATOM	3749	O	GLN	A	473	36.278	46.879	90.950	1.00	12.44
	ATOM	3750	CB	GLN	A	473	36.649	44.137	89.180	1.00	13.06
	ATOM	3751	CG	GLN	A	473	35.730	42.908	89.040	1.00	20.04
	ATOM	3752	CD	GLN	A	473	34.634	42.874	90.108	1.00	19.81
55	ATOM	3753	OE1	GLN	A	473	34.917	42.605	91.270	1.00	30.46
	ATOM	3754	NE2	GLN	A	473	33.387	43.130	89.742	1.00	21.25
	ATOM	3755	N	ARG	A	474	37.656	47.087	89.183	1.00	14.11
	ATOM	3756	CA	ARG	A	474	38.400	48.158	89.868	1.00	17.39
	ATOM	3757	C	ARG	A	474	37.478	49.325	90.235	1.00	21.36
60	ATOM	3758	O	ARG	A	474	37.577	49.922	91.304	1.00	18.76
	ATOM	3759	CB	ARG	A	474	39.532	48.719	89.034	1.00	11.27
	ATOM	3760	CG	ARG	A	474	40.786	47.842	89.038	1.00	17.88
	ATOM	3761	CD	ARG	A	474	41.727	48.283	87.928	1.00	21.70
	ATOM	3762	NE	ARG	A	474	42.122	49.665	88.177	1.00	19.49

	ATOM	3763	CZ	ARG	A	474	42.837	50.419	87.361	1.00	31.34
	ATOM	3764	NH1	ARG	A	474	43.239	49.918	86.190	1.00	25.99
	ATOM	3765	NH2	ARG	A	474	43.160	51.679	87.742	1.00	17.92
5	ATOM	3766	N	TRP	A	475	36.602	49.686	89.306	1.00	14.64
	ATOM	3767	CA	TRP	A	475	35.683	50.774	89.542	1.00	13.85
	ATOM	3768	C	TRP	A	475	34.608	50.352	90.524	1.00	18.33
	ATOM	3769	O	TRP	A	475	34.250	51.076	91.430	1.00	15.30
	ATOM	3770	CB	TRP	A	475	35.033	51.236	88.235	1.00	13.65
10	ATOM	3771	CG	TRP	A	475	35.867	52.222	87.479	1.00	14.81
	ATOM	3772	CD1	TRP	A	475	36.645	51.943	86.399	1.00	17.78
	ATOM	3773	CD2	TRP	A	475	36.007	53.640	87.742	1.00	14.88
	ATOM	3774	NE1	TRP	A	475	37.284	53.090	85.976	1.00	18.25
	ATOM	3775	CE2	TRP	A	475	36.885	54.152	86.756	1.00	20.66
15	ATOM	3776	CE3	TRP	A	475	35.464	54.518	88.694	1.00	15.98
	ATOM	3777	CZ2	TRP	A	475	37.243	55.511	86.714	1.00	19.78
	ATOM	3778	CZ3	TRP	A	475	35.839	55.853	88.665	1.00	18.27
	ATOM	3779	CH2	TRP	A	475	36.723	56.341	87.682	1.00	18.20
	ATOM	3780	N	ILE	A	476	34.081	49.157	90.362	1.00	15.43
20	ATOM	3781	CA	ILE	A	476	33.027	48.713	91.251	1.00	15.88
	ATOM	3782	C	ILE	A	476	33.508	48.628	92.684	1.00	21.66
	ATOM	3783	O	ILE	A	476	32.742	48.833	93.614	1.00	20.18
	ATOM	3784	CB	ILE	A	476	32.498	47.354	90.775	1.00	16.74
	ATOM	3785	CG1	ILE	A	476	31.692	47.485	89.497	1.00	13.74
25	ATOM	3786	CG2	ILE	A	476	31.697	46.620	91.844	1.00	17.08
	ATOM	3787	CD1	ILE	A	476	31.568	46.130	88.810	1.00	22.82
	ATOM	3788	N	THR	A	477	34.780	48.321	92.886	1.00	18.89
	ATOM	3789	CA	THR	A	477	35.286	48.193	94.256	1.00	15.92
	ATOM	3790	C	THR	A	477	36.151	49.355	94.708	1.00	17.65
30	ATOM	3791	O	THR	A	477	36.711	49.333	95.792	1.00	17.49
	ATOM	3792	CB	THR	A	477	36.132	46.904	94.384	1.00	21.13
	ATOM	3793	OG1	THR	A	477	37.296	46.986	93.545	1.00	19.88
	ATOM	3794	CG2	THR	A	477	35.268	45.673	94.035	1.00	16.31
	ATOM	3795	N	ALA	A	478	36.302	50.369	93.884	1.00	18.44
35	ATOM	3796	CA	ALA	A	478	37.131	51.548	94.191	1.00	16.94
	ATOM	3797	C	ALA	A	478	36.729	52.219	95.490	1.00	20.18
	ATOM	3798	O	ALA	A	478	35.552	52.233	95.863	1.00	19.40
	ATOM	3799	CB	ALA	A	478	37.017	52.608	93.077	1.00	15.66
	ATOM	3800	N	LYS	A	479	37.753	52.763	96.148	1.00	17.33
40	ATOM	3801	CA	LYS	A	479	37.654	53.518	97.371	1.00	15.43
	ATOM	3802	C	LYS	A	479	38.196	54.907	97.115	1.00	19.77
	ATOM	3803	O	LYS	A	479	38.757	55.192	96.073	1.00	16.97
	ATOM	3804	CB	LYS	A	479	38.325	52.853	98.562	1.00	17.71
	ATOM	3805	CG	LYS	A	479	37.468	51.685	99.049	1.00	25.29
45	ATOM	3806	CD	LYS	A	479	38.002	51.058	100.324	1.00	28.77
	ATOM	3807	CE	LYS	A	479	36.895	50.623	101.280	1.00	75.63
	ATOM	3808	NZ	LYS	A	479	36.090	49.481	100.815	1.00	66.83
	ATOM	3809	N	GLU	A	480	38.010	55.793	98.068	1.00	19.41
	ATOM	3810	CA	GLU	A	480	38.497	57.120	97.853	1.00	19.30
50	ATOM	3811	C	GLU	A	480	39.933	57.069	97.387	1.00	21.25
	ATOM	3812	O	GLU	A	480	40.321	57.802	96.489	1.00	21.38
	ATOM	3813	CB	GLU	A	480	38.457	57.901	99.183	1.00	21.20
	ATOM	3814	CG	GLU	A	480	37.322	58.931	99.171	1.00	53.93
	ATOM	3815	CD	GLU	A	480	37.505	59.998	98.131	1.00	100.00
	ATOM	3816	OE1	GLU	A	480	38.596	60.401	97.756	1.00	100.00
55	ATOM	3817	OE2	GLU	A	480	36.360	60.456	97.684	1.00	100.00
	ATOM	3818	N	ASP	A	481	40.730	56.249	98.059	1.00	15.59
	ATOM	3819	CA	ASP	A	481	42.120	56.150	97.734	1.00	17.58
	ATOM	3820	C	ASP	A	481	42.463	55.609	96.372	1.00	22.00
60	ATOM	3821	O	ASP	A	481	43.639	55.651	96.002	1.00	21.23
	ATOM	3822	CB	ASP	A	481	42.966	55.475	98.824	1.00	22.35
	ATOM	3823	CG	ASP	A	481	42.845	53.974	98.879	1.00	26.70
	ATOM	3824	OD1	ASP	A	481	42.040	53.276	98.295	1.00	22.31
	ATOM	3825	OD2	ASP	A	481	43.769	53.466	99.638	1.00	19.37
	ATOM	3826	N	ASP	A	482	41.483	55.147	95.608	1.00	16.23

	ATOM	3827	CA	ASP	A	482	41.795	54.667	94.250	1.00	15.66
	ATOM	3828	C	ASP	A	482	41.485	55.667	93.144	1.00	20.38
	ATOM	3829	O	ASP	A	482	41.994	55.549	92.031	1.00	19.78
5	ATOM	3830	CB	ASP	A	482	41.058	53.340	93.885	1.00	16.37
	ATOM	3831	CG	ASP	A	482	41.360	52.283	94.918	1.00	14.59
	ATOM	3832	OD1	ASP	A	482	42.463	51.867	95.146	1.00	16.94
	ATOM	3833	OD2	ASP	A	482	40.338	51.972	95.654	1.00	17.55
	ATOM	3834	N	LEU	A	483	40.627	56.645	93.423	1.00	17.94
10	ATOM	3835	CA	LEU	A	483	40.167	57.591	92.403	1.00	14.70
	ATOM	3836	C	LEU	A	483	41.214	58.319	91.581	1.00	21.17
	ATOM	3837	O	LEU	A	483	41.122	58.519	90.368	1.00	21.03
	ATOM	3838	CB	LEU	A	483	39.110	58.581	92.960	1.00	13.43
	ATOM	3839	CG	LEU	A	483	37.870	57.925	93.558	1.00	15.53
	ATOM	3840	CD1	LEU	A	483	36.970	59.020	94.114	1.00	19.32
15	ATOM	3841	CD2	LEU	A	483	37.047	57.172	92.512	1.00	16.27
	ATOM	3842	N	ASN	A	484	42.220	58.761	92.289	1.00	19.63
	ATOM	3843	CA	ASN	A	484	43.274	59.541	91.713	1.00	19.74
	ATOM	3844	C	ASN	A	484	44.128	58.789	90.738	1.00	21.84
	ATOM	3845	O	ASN	A	484	44.723	59.343	89.827	1.00	20.30
20	ATOM	3846	CB	ASN	A	484	44.110	60.036	92.891	1.00	34.83
	ATOM	3847	CG	ASN	A	484	45.382	60.719	92.449	1.00	100.00
	ATOM	3848	OD1	ASN	A	484	45.345	61.686	91.662	1.00	87.99
	ATOM	3849	ND2	ASN	A	484	46.510	60.200	92.946	1.00	100.00
	ATOM	3850	N	SER	A	485	44.183	57.510	90.918	1.00	17.69
25	ATOM	3851	CA	SER	A	485	44.986	56.711	90.020	1.00	19.64
	ATOM	3852	C	SER	A	485	44.283	56.335	88.728	1.00	22.88
	ATOM	3853	O	SER	A	485	44.965	55.937	87.778	1.00	23.74
	ATOM	3854	CB	SER	A	485	45.543	55.508	90.752	1.00	26.03
	ATOM	3855	OG	SER	A	485	45.864	55.954	92.057	1.00	52.22
30	ATOM	3856	N	PHE	A	486	42.948	56.451	88.650	1.00	15.68
	ATOM	3857	CA	PHE	A	486	42.367	56.105	87.371	1.00	17.12
	ATOM	3858	C	PHE	A	486	42.879	57.120	86.403	1.00	16.98
	ATOM	3859	O	PHE	A	486	43.165	58.236	86.812	1.00	15.87
35	ATOM	3860	CB	PHE	A	486	40.827	56.088	87.376	1.00	18.47
	ATOM	3861	CG	PHE	A	486	40.270	54.950	88.181	1.00	17.85
	ATOM	3862	CD1	PHE	A	486	40.325	53.646	87.686	1.00	17.48
	ATOM	3863	CD2	PHE	A	486	39.669	55.169	89.423	1.00	19.85
	ATOM	3864	CE1	PHE	A	486	39.790	52.599	88.441	1.00	18.74
	ATOM	3865	CE2	PHE	A	486	39.119	54.139	90.189	1.00	19.10
40	ATOM	3866	CZ	PHE	A	486	39.208	52.839	89.689	1.00	17.75
	ATOM	3867	N	ASN	A	487	42.965	56.744	85.140	1.00	16.22
	ATOM	3868	CA	ASN	A	487	43.499	57.636	84.141	1.00	20.09
	ATOM	3869	C	ASN	A	487	43.100	57.184	82.746	1.00	23.67
	ATOM	3870	O	ASN	A	487	42.770	56.024	82.522	1.00	22.60
45	ATOM	3871	CB	ASN	A	487	45.058	57.575	84.255	1.00	21.63
	ATOM	3872	CG	ASN	A	487	45.776	58.616	83.415	1.00	32.80
	ATOM	3873	OD1	ASN	A	487	45.901	58.498	82.202	1.00	29.22
	ATOM	3874	ND2	ASN	A	487	46.159	59.725	84.021	1.00	31.52
50	ATOM	3875	N	ALA	A	488	43.145	58.126	81.800	1.00	23.87
	ATOM	3876	CA	ALA	A	488	42.808	57.829	80.411	1.00	24.07
	ATOM	3877	C	ALA	A	488	43.673	56.703	79.873	1.00	30.63
	ATOM	3878	O	ALA	A	488	43.336	55.962	78.958	1.00	33.83
	ATOM	3879	CB	ALA	A	488	42.978	59.086	79.574	1.00	26.14
55	ATOM	3880	N	THR	A	489	44.835	56.532	80.467	1.00	25.63
	ATOM	3881	CA	THR	A	489	45.666	55.468	79.987	1.00	22.82
	ATOM	3882	C	THR	A	489	44.976	54.168	80.210	1.00	24.75
	ATOM	3883	O	THR	A	489	45.323	53.163	79.615	1.00	26.26
	ATOM	3884	CB	THR	A	489	47.017	55.459	80.691	1.00	29.64
60	ATOM	3885	OG1	THR	A	489	46.814	55.537	82.076	1.00	29.43
	ATOM	3886	CG2	THR	A	489	47.774	56.684	80.231	1.00	35.78
	ATOM	3887	N	ASP	A	490	43.999	54.180	81.097	1.00	21.60
	ATOM	3888	CA	ASP	A	490	43.288	52.946	81.362	1.00	20.54
	ATOM	3889	C	ASP	A	490	42.628	52.391	80.104	1.00	14.90
	ATOM	3890	O	ASP	A	490	42.363	51.207	80.013	1.00	18.94

	ATOM	3891	CB	ASP	A	490	42.188	53.100	82.462	1.00	18.42
	ATOM	3892	CG	ASP	A	490	42.764	53.483	83.785	1.00	21.60
	ATOM	3893	OD1	ASP	A	490	43.865	53.165	84.170	1.00	22.97
5	ATOM	3894	OD2	ASP	A	490	41.930	54.124	84.534	1.00	18.24
	ATOM	3895	N	LEU	A	491	42.309	53.262	79.180	1.00	14.42
	ATOM	3896	CA	LEU	A	491	41.571	52.910	77.971	1.00	18.63
	ATOM	3897	C	LEU	A	491	42.404	52.634	76.735	1.00	26.17
	ATOM	3898	O	LEU	A	491	41.863	52.350	75.689	1.00	23.53
	ATOM	3899	CB	LEU	A	491	40.626	54.065	77.600	1.00	16.48
10	ATOM	3900	CG	LEU	A	491	39.793	54.553	78.786	1.00	17.62
	ATOM	3901	CD1	LEU	A	491	38.719	55.504	78.256	1.00	18.61
	ATOM	3902	CD2	LEU	A	491	39.164	53.341	79.481	1.00	10.99
	ATOM	3903	N	LYS	A	492	43.697	52.773	76.906	1.00	25.72
	ATOM	3904	CA	LYS	A	492	44.773	52.625	75.944	1.00	29.38
15	ATOM	3905	C	LYS	A	492	44.601	51.464	74.987	1.00	26.62
	ATOM	3906	O	LYS	A	492	44.640	51.598	73.769	1.00	25.36
	ATOM	3907	CB	LYS	A	492	46.051	52.369	76.768	1.00	39.68
	ATOM	3908	CG	LYS	A	492	47.400	52.731	76.164	1.00	74.03
20	ATOM	3909	CD	LYS	A	492	48.535	52.573	77.175	1.00	92.88
	ATOM	3910	CE	LYS	A	492	49.162	51.184	77.249	1.00	100.00
	ATOM	3911	NZ	LYS	A	492	50.629	51.214	77.397	1.00	100.00
	ATOM	3912	N	ASP	A	493	44.504	50.271	75.514	1.00	22.05
	ATOM	3913	CA	ASP	A	493	44.400	49.213	74.525	1.00	25.28
25	ATOM	3914	C	ASP	A	493	43.008	48.604	74.421	1.00	31.85
	ATOM	3915	O	ASP	A	493	42.844	47.411	74.178	1.00	31.64
	ATOM	3916	CB	ASP	A	493	45.414	48.126	74.874	1.00	30.29
	ATOM	3917	CG	ASP	A	493	46.803	48.680	74.973	1.00	47.27
	ATOM	3918	OD1	ASP	A	493	47.322	49.280	74.036	1.00	49.99
	ATOM	3919	OD2	ASP	A	493	47.334	48.481	76.167	1.00	45.03
30	ATOM	3920	N	LEU	A	494	41.989	49.430	74.622	1.00	23.95
	ATOM	3921	CA	LEU	A	494	40.633	48.920	74.576	1.00	19.08
	ATOM	3922	C	LEU	A	494	39.939	49.350	73.295	1.00	21.27
	ATOM	3923	O	LEU	A	494	39.960	50.537	72.963	1.00	22.24
35	ATOM	3924	CB	LEU	A	494	39.833	49.421	75.800	1.00	16.85
	ATOM	3925	CG	LEU	A	494	40.346	48.949	77.145	1.00	19.46
	ATOM	3926	CD1	LEU	A	494	39.307	49.363	78.182	1.00	18.39
	ATOM	3927	CD2	LEU	A	494	40.511	47.422	77.183	1.00	20.77
	ATOM	3928	N	SER	A	495	39.320	48.401	72.573	1.00	17.36
40	ATOM	3929	CA	SER	A	495	38.594	48.790	71.382	1.00	16.04
	ATOM	3930	C	SER	A	495	37.256	49.395	71.854	1.00	16.87
	ATOM	3931	O	SER	A	495	36.902	49.328	73.042	1.00	13.30
	ATOM	3932	CB	SER	A	495	38.253	47.547	70.576	1.00	16.67
	ATOM	3933	OG	SER	A	495	37.477	46.701	71.422	1.00	17.37
45	ATOM	3934	N	SER	A	496	36.496	49.950	70.922	1.00	14.14
	ATOM	3935	CA	SER	A	496	35.200	50.501	71.254	1.00	16.64
	ATOM	3936	C	SER	A	496	34.316	49.365	71.794	1.00	17.90
	ATOM	3937	O	SER	A	496	33.495	49.589	72.680	1.00	16.25
	ATOM	3938	CB	SER	A	496	34.553	51.190	70.050	1.00	17.35
50	ATOM	3939	OG	SER	A	496	34.309	50.183	69.105	1.00	23.79
	ATOM	3940	N	HIS	A	497	34.522	48.136	71.274	1.00	15.34
	ATOM	3941	CA	HIS	A	497	33.794	46.965	71.729	1.00	13.46
	ATOM	3942	C	HIS	A	497	33.999	46.671	73.224	1.00	17.45
	ATOM	3943	O	HIS	A	497	33.120	46.277	73.992	1.00	17.69
55	ATOM	3944	CB	HIS	A	497	34.211	45.761	70.874	1.00	13.79
	ATOM	3945	CG	HIS	A	497	33.804	46.004	69.470	1.00	20.43
	ATOM	3946	ND1	HIS	A	497	34.738	46.342	68.482	1.00	24.52
	ATOM	3947	CD2	HIS	A	497	32.551	46.044	68.930	1.00	21.08
	ATOM	3948	CE1	HIS	A	497	34.039	46.531	67.358	1.00	21.87
60	ATOM	3949	NE2	HIS	A	497	32.725	46.363	67.602	1.00	23.02
	ATOM	3950	N	GLN	A	498	35.230	46.833	73.662	1.00	14.00
	ATOM	3951	CA	GLN	A	498	35.633	46.593	75.029	1.00	10.78
	ATOM	3952	C	GLN	A	498	35.180	47.697	75.968	1.00	13.63
	ATOM	3953	O	GLN	A	498	34.829	47.449	77.118	1.00	13.35
	ATOM	3954	CB	GLN	A	498	37.156	46.416	75.038	1.00	11.59

	ATOM	3955	CG	GLN	A	498	37.585	45.026	74.488	1.00	14.99
	ATOM	3956	CD	GLN	A	498	39.101	44.938	74.454	1.00	21.92
	ATOM	3957	OE1	GLN	A	498	39.746	45.833	73.897	1.00	18.12
	ATOM	3958	NE2	GLN	A	498	39.685	43.957	75.117	1.00	11.55
5	ATOM	3959	N	LEU	A	499	35.200	48.942	75.490	1.00	16.63
	ATOM	3960	CA	LEU	A	499	34.712	50.095	76.273	1.00	18.30
	ATOM	3961	C	LEU	A	499	33.222	49.848	76.647	1.00	18.08
	ATOM	3962	O	LEU	A	499	32.711	50.004	77.782	1.00	14.69
10	ATOM	3963	CB	LEU	A	499	34.719	51.296	75.293	1.00	19.02
	ATOM	3964	CG	LEU	A	499	35.650	52.421	75.677	1.00	28.28
	ATOM	3965	CD1	LEU	A	499	36.768	51.856	76.527	1.00	27.69
	ATOM	3966	CD2	LEU	A	499	36.210	53.135	74.448	1.00	31.77
	ATOM	3967	N	ASN	A	500	32.491	49.430	75.610	1.00	11.59
	ATOM	3968	CA	ASN	A	500	31.084	49.123	75.748	1.00	10.98
15	ATOM	3969	C	ASN	A	500	30.844	48.021	76.775	1.00	11.55
	ATOM	3970	O	ASN	A	500	29.989	48.125	77.656	1.00	13.43
	ATOM	3971	CB	ASN	A	500	30.530	48.735	74.355	1.00	11.90
	ATOM	3972	CG	ASN	A	500	29.020	48.504	74.328	1.00	26.05
20	ATOM	3973	OD1	ASN	A	500	28.208	49.304	74.815	1.00	19.55
	ATOM	3974	ND2	ASN	A	500	28.607	47.387	73.759	1.00	21.02
	ATOM	3975	N	GLU	A	501	31.601	46.927	76.633	1.00	11.18
	ATOM	3976	CA	GLU	A	501	31.471	45.787	77.537	1.00	11.00
	ATOM	3977	C	GLU	A	501	31.859	46.184	78.954	1.00	14.40
25	ATOM	3978	O	GLU	A	501	31.266	45.757	79.930	1.00	13.70
	ATOM	3979	CB	GLU	A	501	32.286	44.574	77.022	1.00	13.23
	ATOM	3980	CG	GLU	A	501	32.328	43.425	78.064	1.00	12.24
	ATOM	3981	CD	GLU	A	501	30.930	42.880	78.253	1.00	20.51
	ATOM	3982	OE1	GLU	A	501	30.040	43.113	77.452	1.00	18.75
30	ATOM	3983	OE2	GLU	A	501	30.747	42.158	79.338	1.00	16.17
	ATOM	3984	N	PHE	A	502	32.876	47.051	79.080	1.00	10.99
	ATOM	3985	CA	PHE	A	502	33.281	47.530	80.382	1.00	12.47
	ATOM	3986	C	PHE	A	502	32.095	48.241	81.068	1.00	12.80
	ATOM	3987	O	PHE	A	502	31.733	48.062	82.230	1.00	11.74
35	ATOM	3988	CB	PHE	A	502	34.498	48.490	80.167	1.00	14.11
	ATOM	3989	CG	PHE	A	502	34.641	49.500	81.265	1.00	11.76
	ATOM	3990	CD1	PHE	A	502	34.958	49.120	82.570	1.00	9.77
	ATOM	3991	CD2	PHE	A	502	34.363	50.847	81.040	1.00	17.45
	ATOM	3992	CE1	PHE	A	502	35.059	50.053	83.605	1.00	12.88
40	ATOM	3993	CE2	PHE	A	502	34.443	51.799	82.063	1.00	20.32
	ATOM	3994	CZ	PHE	A	502	34.812	51.406	83.350	1.00	16.55
	ATOM	3995	N	LEU	A	503	31.470	49.100	80.286	1.00	10.48
	ATOM	3996	CA	LEU	A	503	30.342	49.835	80.759	1.00	11.84
	ATOM	3997	C	LEU	A	503	29.184	48.917	81.089	1.00	11.65
45	ATOM	3998	O	LEU	A	503	28.531	49.077	82.110	1.00	14.41
	ATOM	3999	CB	LEU	A	503	29.974	50.854	79.668	1.00	12.15
	ATOM	4000	CG	LEU	A	503	30.872	52.105	79.668	1.00	12.97
	ATOM	4001	CD1	LEU	A	503	30.572	52.957	78.438	1.00	9.62
	ATOM	4002	CD2	LEU	A	503	30.614	52.935	80.936	1.00	14.08
50	ATOM	4003	N	ALA	A	504	28.947	47.910	80.248	1.00	12.65
	ATOM	4004	CA	ALA	A	504	27.850	46.977	80.499	1.00	8.77
	ATOM	4005	C	ALA	A	504	28.038	46.282	81.812	1.00	12.09
	ATOM	4006	O	ALA	A	504	27.118	46.081	82.598	1.00	10.26
	ATOM	4007	CB	ALA	A	504	27.742	45.965	79.370	1.00	7.47
55	ATOM	4008	N	GLN	A	505	29.280	45.900	82.035	1.00	12.47
	ATOM	4009	CA	GLN	A	505	29.609	45.209	83.271	1.00	12.94
	ATOM	4010	C	GLN	A	505	29.424	46.144	84.484	1.00	14.71
	ATOM	4011	O	GLN	A	505	28.902	45.773	85.566	1.00	13.04
	ATOM	4012	CB	GLN	A	505	31.068	44.689	83.183	1.00	14.37
60	ATOM	4013	CG	GLN	A	505	31.243	43.520	82.174	1.00	17.48
	ATOM	4014	CD	GLN	A	505	32.693	43.054	82.089	1.00	20.84
	ATOM	4015	OE1	GLN	A	505	33.556	43.462	82.890	1.00	21.65
	ATOM	4016	NE2	GLN	A	505	32.990	42.221	81.096	1.00	16.13
	ATOM	4017	N	THR	A	506	29.862	47.389	84.298	1.00	13.56
	ATOM	4018	CA	THR	A	506	29.749	48.348	85.373	1.00	15.13

	ATOM	4019	C	THR A 506	28.280	48.610	85.714	1.00	17.30
	ATOM	4020	O	THR A 506	27.835	48.662	86.879	1.00	13.71
	ATOM	4021	CB	THR A 506	30.561	49.613	85.043	1.00	13.74
5	ATOM	4022	OG1	THR A 506	31.903	49.243	84.853	1.00	13.66
	ATOM	4023	CG2	THR A 506	30.542	50.538	86.242	1.00	16.98
	ATOM	4024	N	LEU A 507	27.532	48.734	84.636	1.00	15.17
	ATOM	4025	CA	LEU A 507	26.109	49.007	84.748	1.00	15.46
	ATOM	4026	C	LEU A 507	25.391	47.944	85.517	1.00	15.53
10	ATOM	4027	O	LEU A 507	24.464	48.230	86.256	1.00	14.10
	ATOM	4028	CB	LEU A 507	25.476	49.185	83.351	1.00	16.26
	ATOM	4029	CG	LEU A 507	24.017	49.581	83.374	1.00	17.96
	ATOM	4030	CD1	LEU A 507	23.801	50.929	84.087	1.00	12.71
	ATOM	4031	CD2	LEU A 507	23.550	49.633	81.923	1.00	13.10
15	ATOM	4032	N	GLN A 508	25.802	46.696	85.343	1.00	14.24
	ATOM	4033	CA	GLN A 508	25.145	45.630	86.077	1.00	11.70
	ATOM	4034	C	GLN A 508	25.264	45.846	87.581	1.00	19.07
	ATOM	4035	O	GLN A 508	24.521	45.269	88.354	1.00	16.98
	ATOM	4036	CB	GLN A 508	25.736	44.246	85.745	1.00	11.79
20	ATOM	4037	CG	GLN A 508	25.402	43.722	84.334	1.00	17.73
	ATOM	4038	CD	GLN A 508	25.860	42.282	84.204	1.00	20.08
	ATOM	4039	OE1	GLN A 508	26.960	41.972	84.695	1.00	23.98
	ATOM	4040	NE2	GLN A 508	25.048	41.402	83.594	1.00	15.23
	ATOM	4041	N	ARG A 509	26.217	46.639	88.053	1.00	17.16
25	ATOM	4042	CA	ARG A 509	26.332	46.847	89.498	1.00	12.26
	ATOM	4043	C	ARG A 509	25.960	48.279	89.899	1.00	17.09
	ATOM	4044	O	ARG A 509	26.379	48.778	90.948	1.00	18.12
	ATOM	4045	CB	ARG A 509	27.741	46.537	90.036	1.00	12.59
	ATOM	4046	CG	ARG A 509	28.095	45.097	89.784	1.00	17.56
30	ATOM	4047	CD	ARG A 509	27.422	44.228	90.829	1.00	25.37
	ATOM	4048	NE	ARG A 509	28.134	44.270	92.117	1.00	81.24
	ATOM	4049	CZ	ARG A 509	29.377	43.822	92.417	1.00	88.85
	ATOM	4050	NH1	ARG A 509	30.235	43.233	91.555	1.00	63.02
	ATOM	4051	NH2	ARG A 509	29.779	43.978	93.676	1.00	42.33
35	ATOM	4052	N	ALA A 510	25.162	48.958	89.088	1.00	14.89
	ATOM	4053	CA	ALA A 510	24.782	50.321	89.428	1.00	13.02
	ATOM	4054	C	ALA A 510	23.824	50.270	90.594	1.00	22.66
	ATOM	4055	O	ALA A 510	23.176	49.243	90.747	1.00	21.57
	ATOM	4056	CB	ALA A 510	24.166	51.066	88.248	1.00	13.60
40	ATOM	4057	N	PRO A 511	23.755	51.340	91.417	1.00	20.55
	ATOM	4058	CA	PRO A 511	24.521	52.568	91.190	1.00	16.50
	ATOM	4059	C	PRO A 511	25.912	52.528	91.759	1.00	17.68
	ATOM	4060	O	PRO A 511	26.199	51.765	92.658	1.00	15.20
	ATOM	4061	CB	PRO A 511	23.836	53.667	92.001	1.00	15.68
45	ATOM	4062	CG	PRO A 511	23.118	52.916	93.106	1.00	22.23
	ATOM	4063	CD	PRO A 511	22.859	51.497	92.597	1.00	18.77
	ATOM	4064	N	LEU A 512	26.755	53.380	91.203	1.00	19.26
	ATOM	4065	CA	LEU A 512	28.070	53.588	91.751	1.00	19.26
	ATOM	4066	C	LEU A 512	27.964	54.919	92.529	1.00	19.35
50	ATOM	4067	O	LEU A 512	27.053	55.732	92.316	1.00	15.40
	ATOM	4068	CB	LEU A 512	29.183	53.659	90.683	1.00	19.06
	ATOM	4069	CG	LEU A 512	29.796	52.274	90.415	1.00	23.85
	ATOM	4070	CD1	LEU A 512	28.762	51.351	89.763	1.00	24.14
	ATOM	4071	CD2	LEU A 512	30.975	52.408	89.453	1.00	17.31
55	ATOM	4072	N	PRO A 513	28.880	55.157	93.459	1.00	18.91
	ATOM	4073	CA	PRO A 513	28.823	56.408	94.168	1.00	16.34
	ATOM	4074	C	PRO A 513	28.925	57.520	93.140	1.00	17.64
	ATOM	4075	O	PRO A 513	29.686	57.443	92.192	1.00	15.39
	ATOM	4076	CB	PRO A 513	30.031	56.431	95.107	1.00	16.06
60	ATOM	4077	CG	PRO A 513	30.443	54.972	95.246	1.00	21.97
	ATOM	4078	CD	PRO A 513	29.960	54.270	93.987	1.00	17.15
	ATOM	4079	N	LEU A 514	28.154	58.573	93.341	1.00	19.37
	ATOM	4080	CA	LEU A 514	28.155	59.712	92.431	1.00	20.71
	ATOM	4081	C	LEU A 514	29.567	60.240	92.151	1.00	22.73
	ATOM	4082	O	LEU A 514	29.934	60.486	90.991	1.00	20.91

	ATOM	4083	CB	LEU	A	514	27.209	60.816	92.955	1.00	19.46
	ATOM	4084	CG	LEU	A	514	27.173	62.058	92.077	1.00	23.47
	ATOM	4085	CD1	LEU	A	514	26.650	61.694	90.681	1.00	21.60
5	ATOM	4086	CD2	LEU	A	514	26.275	63.087	92.767	1.00	19.09
	ATOM	4087	N	GLY	A	515	30.353	60.384	93.236	1.00	19.02
	ATOM	4088	CA	GLY	A	515	31.711	60.866	93.104	1.00	16.33
	ATOM	4089	C	GLY	A	515	32.489	60.000	92.121	1.00	20.68
	ATOM	4090	O	GLY	A	515	33.336	60.489	91.363	1.00	17.47
10	ATOM	4091	N	HIS	A	516	32.199	58.691	92.105	1.00	16.69
	ATOM	4092	CA	HIS	A	516	32.961	57.829	91.206	1.00	16.67
	ATOM	4093	C	HIS	A	516	32.629	58.092	89.762	1.00	16.39
	ATOM	4094	O	HIS	A	516	33.485	58.094	88.886	1.00	13.40
	ATOM	4095	CB	HIS	A	516	32.781	56.335	91.479	1.00	16.85
15	ATOM	4096	CG	HIS	A	516	33.328	55.909	92.786	1.00	23.07
	ATOM	4097	ND1	HIS	A	516	33.586	56.811	93.804	1.00	27.10
	ATOM	4098	CD2	HIS	A	516	33.691	54.664	93.219	1.00	26.55
	ATOM	4099	CE1	HIS	A	516	34.067	56.096	94.831	1.00	27.40
	ATOM	4100	NE2	HIS	A	516	34.144	54.803	94.514	1.00	26.59
20	ATOM	4101	N	ILE	A	517	31.349	58.288	89.534	1.00	14.76
	ATOM	4102	CA	ILE	A	517	30.887	58.520	88.189	1.00	15.71
	ATOM	4103	C	ILE	A	517	31.444	59.817	87.666	1.00	13.62
	ATOM	4104	O	ILE	A	517	31.851	59.960	86.511	1.00	13.02
	ATOM	4105	CB	ILE	A	517	29.350	58.408	88.144	1.00	20.46
25	ATOM	4106	CG1	ILE	A	517	28.925	56.989	88.555	1.00	23.97
	ATOM	4107	CG2	ILE	A	517	28.793	58.653	86.750	1.00	19.51
	ATOM	4108	CD1	ILE	A	517	29.636	55.831	87.826	1.00	21.92
	ATOM	4109	N	LYS	A	518	31.433	60.804	88.549	1.00	13.76
	ATOM	4110	CA	LYS	A	518	32.004	62.082	88.137	1.00	12.83
30	ATOM	4111	C	LYS	A	518	33.487	61.877	87.759	1.00	17.13
	ATOM	4112	O	LYS	A	518	33.971	62.371	86.745	1.00	14.95
	ATOM	4113	CB	LYS	A	518	31.858	63.092	89.279	1.00	12.59
	ATOM	4114	CG	LYS	A	518	30.392	63.447	89.416	1.00	15.77
	ATOM	4115	CD	LYS	A	518	30.169	64.528	90.446	1.00	25.59
35	ATOM	4116	CE	LYS	A	518	28.743	65.047	90.425	1.00	26.22
	ATOM	4117	NZ	LYS	A	518	28.669	66.440	90.886	1.00	26.75
	ATOM	4118	N	ARG	A	519	34.237	61.144	88.604	1.00	15.99
	ATOM	4119	CA	ARG	A	519	35.647	60.914	88.321	1.00	13.25
	ATOM	4120	C	ARG	A	519	35.803	60.213	86.998	1.00	16.26
40	ATOM	4121	O	ARG	A	519	36.679	60.478	86.216	1.00	13.50
	ATOM	4122	CB	ARG	A	519	36.265	60.075	89.423	1.00	14.16
	ATOM	4123	CG	ARG	A	519	37.741	59.741	89.216	1.00	13.79
	ATOM	4124	CD	ARG	A	519	38.685	60.955	89.134	1.00	22.42
	ATOM	4125	NE	ARG	A	519	40.127	60.613	89.069	1.00	17.77
45	ATOM	4126	CZ	ARG	A	519	41.035	61.432	88.570	1.00	19.26
	ATOM	4127	NH1	ARG	A	519	40.692	62.640	88.087	1.00	18.57
	ATOM	4128	NH2	ARG	A	519	42.289	61.014	88.549	1.00	17.51
	ATOM	4129	N	MET	A	520	34.897	59.292	86.743	1.00	13.85
	ATOM	4130	CA	MET	A	520	34.944	58.548	85.514	1.00	13.32
50	ATOM	4131	C	MET	A	520	34.803	59.460	84.299	1.00	16.61
	ATOM	4132	O	MET	A	520	35.461	59.286	83.279	1.00	15.39
	ATOM	4133	CB	MET	A	520	33.860	57.425	85.585	1.00	15.92
	ATOM	4134	CG	MET	A	520	33.887	56.502	84.369	1.00	16.73
	ATOM	4135	SD	MET	A	520	32.699	55.131	84.463	1.00	19.40
55	ATOM	4136	CE	MET	A	520	33.250	54.267	85.942	1.00	17.31
	ATOM	4137	N	GLN	A	521	33.919	60.449	84.358	1.00	10.96
	ATOM	4138	CA	GLN	A	521	33.800	61.336	83.205	1.00	10.25
	ATOM	4139	C	GLN	A	521	35.105	62.160	83.122	1.00	14.21
	ATOM	4140	O	GLN	A	521	35.684	62.487	82.073	1.00	11.43
60	ATOM	4141	CB	GLN	A	521	32.548	62.237	83.376	1.00	9.22
	ATOM	4142	CG	GLN	A	521	32.547	63.519	82.503	1.00	12.68
	ATOM	4143	CD	GLN	A	521	32.758	63.301	81.025	1.00	18.23
	ATOM	4144	OE1	GLN	A	521	33.271	64.187	80.309	1.00	20.20
	ATOM	4145	NE2	GLN	A	521	32.453	62.102	80.554	1.00	10.43
	ATOM	4146	N	GLU	A	522	35.608	62.524	84.295	1.00	15.29



	ATOM	4147	CA	GLU	A	522	36.816	63.335	84.345	1.00	14.86
	ATOM	4148	C	GLU	A	522	38.026	62.632	83.702	1.00	24.87
	ATOM	4149	O	GLU	A	522	38.848	63.232	82.990	1.00	19.95
5	ATOM	4150	CB	GLU	A	522	37.068	63.573	85.820	1.00	15.93
	ATOM	4151	CG	GLU	A	522	38.175	64.573	86.121	1.00	34.79
	ATOM	4152	CD	GLU	A	522	38.013	64.959	87.556	1.00	61.54
	ATOM	4153	OE1	GLU	A	522	38.436	64.271	88.466	1.00	24.02
	ATOM	4154	OE2	GLU	A	522	37.252	66.014	87.710	1.00	60.58
10	ATOM	4155	N	VAL	A	523	38.179	61.338	83.966	1.00	17.81
	ATOM	4156	CA	VAL	A	523	39.302	60.635	83.392	1.00	17.49
	ATOM	4157	C	VAL	A	523	39.081	60.051	81.994	1.00	17.20
	ATOM	4158	O	VAL	A	523	40.038	59.940	81.230	1.00	22.12
	ATOM	4159	CB	VAL	A	523	39.952	59.621	84.340	1.00	18.80
15	ATOM	4160	CG1	VAL	A	523	40.427	60.324	85.613	1.00	18.67
	ATOM	4161	CG2	VAL	A	523	38.957	58.522	84.717	1.00	17.30
	ATOM	4162	N	TYR	A	524	37.851	59.676	81.633	1.00	13.33
	ATOM	4163	CA	TYR	A	524	37.638	59.045	80.331	1.00	12.09
	ATOM	4164	C	TYR	A	524	36.842	59.839	79.321	1.00	19.77
20	ATOM	4165	O	TYR	A	524	36.720	59.417	78.179	1.00	17.94
	ATOM	4166	CB	TYR	A	524	36.961	57.656	80.463	1.00	13.83
	ATOM	4167	CG	TYR	A	524	37.615	56.667	81.421	1.00	14.86
	ATOM	4168	CD1	TYR	A	524	38.999	56.608	81.574	1.00	13.07
	ATOM	4169	CD2	TYR	A	524	36.832	55.761	82.146	1.00	19.57
25	ATOM	4170	CE1	TYR	A	524	39.592	55.704	82.460	1.00	18.13
	ATOM	4171	CE2	TYR	A	524	37.403	54.832	83.019	1.00	18.46
	ATOM	4172	CZ	TYR	A	524	38.790	54.813	83.181	1.00	17.58
	ATOM	4173	OH	TYR	A	524	39.360	53.937	84.087	1.00	16.81
	ATOM	4174	N	ASN	A	525	36.235	60.940	79.753	1.00	20.91
30	ATOM	4175	CA	ASN	A	525	35.435	61.755	78.865	1.00	16.88
	ATOM	4176	C	ASN	A	525	34.488	60.923	78.018	1.00	18.05
	ATOM	4177	O	ASN	A	525	34.450	61.014	76.789	1.00	15.92
	ATOM	4178	CB	ASN	A	525	36.361	62.615	78.002	1.00	13.81
	ATOM	4179	CG	ASN	A	525	35.680	63.751	77.259	1.00	18.94
35	ATOM	4180	OD1	ASN	A	525	36.243	64.268	76.280	1.00	18.98
	ATOM	4181	ND2	ASN	A	525	34.502	64.169	77.693	1.00	14.31
	ATOM	4182	N	PHE	A	526	33.659	60.120	78.683	1.00	14.70
	ATOM	4183	CA	PHE	A	526	32.676	59.337	77.947	1.00	12.71
	ATOM	4184	C	PHE	A	526	31.596	60.234	77.380	1.00	16.60
40	ATOM	4185	O	PHE	A	526	30.891	59.866	76.439	1.00	15.88
	ATOM	4186	CB	PHE	A	526	32.038	58.303	78.876	1.00	14.35
	ATOM	4187	CG	PHE	A	526	32.957	57.130	79.130	1.00	15.85
	ATOM	4188	CD1	PHE	A	526	33.895	56.735	78.175	1.00	19.68
	ATOM	4189	CD2	PHE	A	526	32.876	56.397	80.314	1.00	16.85
45	ATOM	4190	CE1	PHE	A	526	34.687	55.604	78.378	1.00	21.64
	ATOM	4191	CE2	PHE	A	526	33.698	55.298	80.567	1.00	19.90
	ATOM	4192	CZ	PHE	A	526	34.590	54.890	79.575	1.00	18.31
	ATOM	4193	N	ASN	A	527	31.418	61.433	77.949	1.00	12.75
	ATOM	4194	CA	ASN	A	527	30.391	62.355	77.446	1.00	12.28
50	ATOM	4195	C	ASN	A	527	30.627	62.668	75.971	1.00	19.85
	ATOM	4196	O	ASN	A	527	29.715	62.907	75.185	1.00	18.13
	ATOM	4197	CB	ASN	A	527	30.431	63.713	78.160	1.00	13.86
	ATOM	4198	CG	ASN	A	527	29.641	63.696	79.434	1.00	25.14
	ATOM	4199	OD1	ASN	A	527	29.760	64.600	80.250	1.00	20.32
55	ATOM	4200	ND2	ASN	A	527	28.830	62.668	79.610	1.00	10.82
	ATOM	4201	N	ALA	A	528	31.906	62.668	75.607	1.00	15.34
	ATOM	4202	CA	ALA	A	528	32.280	62.964	74.264	1.00	17.72
	ATOM	4203	C	ALA	A	528	32.075	61.861	73.228	1.00	26.48
	ATOM	4204	O	ALA	A	528	32.198	62.127	72.031	1.00	21.26
60	ATOM	4205	CB	ALA	A	528	33.729	63.372	74.236	1.00	18.38
	ATOM	4206	N	ILE	A	529	31.810	60.629	73.664	1.00	19.00
	ATOM	4207	CA	ILE	A	529	31.690	59.524	72.731	1.00	15.58
	ATOM	4208	C	ILE	A	529	30.389	59.499	71.945	1.00	15.90
	ATOM	4209	O	ILE	A	529	29.305	59.561	72.494	1.00	16.45
	ATOM	4210	CB	ILE	A	529	31.946	58.208	73.454	1.00	17.38

	ATOM	4211	CG1	ILE	A	529	33.456	58.159	73.709	1.00	19.42
	ATOM	4212	CG2	ILE	A	529	31.511	57.103	72.488	1.00	17.67
	ATOM	4213	CD1	ILE	A	529	34.027	57.047	74.576	1.00	23.37
	ATOM	4214	N	ASN	A	530	30.440	59.418	70.641	1.00	16.94
5	ATOM	4215	CA	ASN	A	530	29.151	59.417	69.969	1.00	20.74
	ATOM	4216	C	ASN	A	530	28.522	58.081	69.611	1.00	25.19
	ATOM	4217	O	ASN	A	530	27.369	58.026	69.217	1.00	23.63
	ATOM	4218	CB	ASN	A	530	28.937	60.566	68.986	1.00	39.14
	ATOM	4219	CG	ASN	A	530	28.612	61.852	69.749	1.00	80.92
10	ATOM	4220	OD1	ASN	A	530	27.639	61.959	70.533	1.00	86.83
	ATOM	4221	ND2	ASN	A	530	29.470	62.838	69.537	1.00	45.14
	ATOM	4222	N	ASN	A	531	29.306	57.019	69.759	1.00	19.99
	ATOM	4223	CA	ASN	A	531	28.875	55.667	69.494	1.00	18.88
	ATOM	4224	C	ASN	A	531	27.637	55.452	70.350	1.00	15.67
15	ATOM	4225	O	ASN	A	531	27.671	55.661	71.566	1.00	15.13
	ATOM	4226	CB	ASN	A	531	30.045	54.762	69.928	1.00	11.62
	ATOM	4227	CG	ASN	A	531	29.705	53.292	69.866	1.00	26.73
	ATOM	4228	OD1	ASN	A	531	28.724	52.832	70.471	1.00	21.97
	ATOM	4229	ND2	ASN	A	531	30.510	52.554	69.105	1.00	18.28
20	ATOM	4230	N	SER	A	532	26.551	55.074	69.715	1.00	12.93
	ATOM	4231	CA	SER	A	532	25.293	54.931	70.456	1.00	15.99
	ATOM	4232	C	SER	A	532	25.248	53.889	71.565	1.00	17.50
	ATOM	4233	O	SER	A	532	24.631	54.066	72.611	1.00	20.47
	ATOM	4234	CB	SER	A	532	24.088	54.846	69.518	1.00	17.43
25	ATOM	4235	OG	SER	A	532	24.274	53.791	68.570	1.00	24.83
	ATOM	4236	N	GLU	A	533	25.876	52.753	71.337	1.00	14.65
	ATOM	4237	CA	GLU	A	533	25.835	51.708	72.339	1.00	13.13
	ATOM	4238	C	GLU	A	533	26.497	52.181	73.614	1.00	19.42
	ATOM	4239	O	GLU	A	533	25.964	52.028	74.725	1.00	15.25
30	ATOM	4240	CB	GLU	A	533	26.547	50.464	71.780	1.00	13.22
	ATOM	4241	CG	GLU	A	533	25.712	49.829	70.637	1.00	9.87
	ATOM	4242	CD	GLU	A	533	24.531	49.055	71.162	1.00	21.99
	ATOM	4243	OE1	GLU	A	533	24.395	48.722	72.319	1.00	18.49
	ATOM	4244	OE2	GLU	A	533	23.625	48.805	70.267	1.00	16.24
35	ATOM	4245	N	ILE	A	534	27.686	52.747	73.415	1.00	15.22
	ATOM	4246	CA	ILE	A	534	28.495	53.265	74.512	1.00	14.94
	ATOM	4247	C	ILE	A	534	27.793	54.420	75.228	1.00	14.04
	ATOM	4248	O	ILE	A	534	27.677	54.447	76.461	1.00	17.42
	ATOM	4249	CB	ILE	A	534	29.926	53.655	74.077	1.00	17.98
40	ATOM	4250	CG1	ILE	A	534	30.733	52.461	73.557	1.00	13.41
	ATOM	4251	CG2	ILE	A	534	30.680	54.387	75.216	1.00	15.34
	ATOM	4252	CD1	ILE	A	534	32.003	52.906	72.825	1.00	17.39
	ATOM	4253	N	ARG	A	535	27.310	55.402	74.475	1.00	14.39
	ATOM	4254	CA	ARG	A	535	26.611	56.511	75.135	1.00	17.35
45	ATOM	4255	C	ARG	A	535	25.347	56.016	75.868	1.00	14.54
	ATOM	4256	O	ARG	A	535	24.998	56.382	76.973	1.00	15.05
	ATOM	4257	CB	ARG	A	535	26.232	57.576	74.108	1.00	16.26
	ATOM	4258	CG	ARG	A	535	25.583	58.826	74.730	1.00	8.73
	ATOM	4259	CD	ARG	A	535	25.392	59.919	73.666	1.00	11.55
50	ATOM	4260	NE	ARG	A	535	25.126	61.228	74.251	1.00	15.18
	ATOM	4261	CZ	ARG	A	535	26.049	62.043	74.761	1.00	26.20
	ATOM	4262	NH1	ARG	A	535	27.354	61.765	74.769	1.00	20.26
	ATOM	4263	NH2	ARG	A	535	25.636	63.189	75.286	1.00	19.91
	ATOM	4264	N	PHE	A	536	24.632	55.126	75.233	1.00	11.71
55	ATOM	4265	CA	PHE	A	536	23.462	54.627	75.876	1.00	9.63
	ATOM	4266	C	PHE	A	536	23.825	54.092	77.233	1.00	13.77
	ATOM	4267	O	PHE	A	536	23.256	54.497	78.231	1.00	13.81
	ATOM	4268	CB	PHE	A	536	22.906	53.471	75.016	1.00	10.66
	ATOM	4269	CG	PHE	A	536	21.865	52.621	75.710	1.00	14.64
60	ATOM	4270	CD1	PHE	A	536	20.699	53.158	76.256	1.00	13.81
	ATOM	4271	CD2	PHE	A	536	22.052	51.242	75.840	1.00	19.23
	ATOM	4272	CE1	PHE	A	536	19.762	52.325	76.877	1.00	14.23
	ATOM	4273	CE2	PHE	A	536	21.127	50.395	76.457	1.00	16.53
	ATOM	4274	CZ	PHE	A	536	19.960	50.945	76.984	1.00	11.63

	ATOM	4275	N	ARG A 537	24.750	53.131	77.282	1.00	12.89
	ATOM	4276	CA	ARG A 537	25.110	52.536	78.577	1.00	11.92
	ATOM	4277	C	ARG A 537	25.734	53.520	79.575	1.00	16.03
5	ATOM	4278	O	ARG A 537	25.525	53.436	80.793	1.00	10.71
	ATOM	4279	CB	ARG A 537	25.949	51.253	78.505	1.00	11.85
	ATOM	4280	CG	ARG A 537	25.274	50.113	77.776	1.00	8.59
	ATOM	4281	CD	ARG A 537	26.142	48.857	77.547	1.00	17.16
	ATOM	4282	NE	ARG A 537	25.233	47.845	76.992	1.00	16.12
10	ATOM	4283	CZ	ARG A 537	24.869	47.824	75.716	1.00	25.23
	ATOM	4284	NH1	ARG A 537	25.414	48.641	74.802	1.00	13.55
	ATOM	4285	NH2	ARG A 537	23.946	46.947	75.356	1.00	16.52
	ATOM	4286	N	TRP A 538	26.544	54.451	79.060	1.00	13.16
	ATOM	4287	CA	TRP A 538	27.170	55.440	79.907	1.00	10.77
15	ATOM	4288	C	TRP A 538	26.079	56.286	80.532	1.00	13.43
	ATOM	4289	O	TRP A 538	26.048	56.509	81.736	1.00	13.45
	ATOM	4290	CB	TRP A 538	28.036	56.318	78.996	1.00	12.97
	ATOM	4291	CG	TRP A 538	28.489	57.611	79.604	1.00	12.46
	ATOM	4292	CD1	TRP A 538	28.330	58.807	79.019	1.00	13.56
20	ATOM	4293	CD2	TRP A 538	29.199	57.826	80.857	1.00	11.95
	ATOM	4294	NE1	TRP A 538	28.932	59.757	79.801	1.00	12.84
	ATOM	4295	CE2	TRP A 538	29.455	59.208	80.938	1.00	12.68
	ATOM	4296	CE3	TRP A 538	29.667	57.000	81.914	1.00	11.87
	ATOM	4297	CZ2	TRP A 538	30.115	59.780	82.024	1.00	10.55
25	ATOM	4298	CZ3	TRP A 538	30.334	57.557	82.994	1.00	12.97
	ATOM	4299	CH2	TRP A 538	30.537	58.953	83.046	1.00	14.62
	ATOM	4300	N	LEU A 539	25.160	56.761	79.714	1.00	8.88
	ATOM	4301	CA	LEU A 539	24.132	57.592	80.310	1.00	11.52
	ATOM	4302	C	LEU A 539	23.249	56.878	81.335	1.00	17.64
30	ATOM	4303	O	LEU A 539	22.775	57.470	82.308	1.00	15.29
	ATOM	4304	CB	LEU A 539	23.253	58.271	79.251	1.00	13.68
	ATOM	4305	CG	LEU A 539	23.977	59.247	78.323	1.00	15.24
	ATOM	4306	CD1	LEU A 539	22.989	59.923	77.388	1.00	13.27
	ATOM	4307	CD2	LEU A 539	24.693	60.312	79.121	1.00	13.80
35	ATOM	4308	N	ARG A 540	22.988	55.583	81.115	1.00	14.05
	ATOM	4309	CA	ARG A 540	22.176	54.850	82.067	1.00	11.62
	ATOM	4310	C	ARG A 540	22.880	54.792	83.418	1.00	13.27
	ATOM	4311	O	ARG A 540	22.277	54.942	84.488	1.00	12.86
	ATOM	4312	CB	ARG A 540	21.883	53.426	81.584	1.00	12.88
40	ATOM	4313	CG	ARG A 540	20.894	53.325	80.408	1.00	8.76
	ATOM	4314	CD	ARG A 540	20.453	51.857	80.281	1.00	14.08
	ATOM	4315	NE	ARG A 540	19.442	51.552	81.288	1.00	11.93
	ATOM	4316	CZ	ARG A 540	18.856	50.391	81.486	1.00	16.72
	ATOM	4317	NH1	ARG A 540	19.145	49.317	80.774	1.00	16.31
45	ATOM	4318	NH2	ARG A 540	17.926	50.330	82.416	1.00	9.86
	ATOM	4319	N	LEU A 541	24.189	54.546	83.338	1.00	10.69
	ATOM	4320	CA	LEU A 541	25.036	54.432	84.526	1.00	9.89
	ATOM	4321	C	LEU A 541	25.017	55.712	85.353	1.00	12.38
	ATOM	4322	O	LEU A 541	24.961	55.749	86.598	1.00	12.85
50	ATOM	4323	CB	LEU A 541	26.482	54.119	84.074	1.00	8.98
	ATOM	4324	CG	LEU A 541	27.519	53.986	85.194	1.00	13.06
	ATOM	4325	CD1	LEU A 541	27.144	52.889	86.196	1.00	11.30
	ATOM	4326	CD2	LEU A 541	28.904	53.697	84.606	1.00	11.15
	ATOM	4327	N	CYS A 542	25.097	56.800	84.603	1.00	14.91
55	ATOM	4328	CA	CYS A 542	25.043	58.147	85.153	1.00	15.42
	ATOM	4329	C	CYS A 542	23.719	58.436	85.881	1.00	12.87
	ATOM	4330	O	CYS A 542	23.689	58.913	87.019	1.00	13.42
	ATOM	4331	CB	CYS A 542	25.234	59.166	83.987	1.00	14.29
	ATOM	4332	SG	CYS A 542	26.987	59.258	83.516	1.00	15.48
60	ATOM	4333	N	ILE A 543	22.620	58.161	85.188	1.00	11.12
	ATOM	4334	CA	ILE A 543	21.287	58.388	85.723	1.00	12.92
	ATOM	4335	C	ILE A 543	21.034	57.514	86.912	1.00	15.64
	ATOM	4336	O	ILE A 543	20.565	57.959	87.965	1.00	14.40
	ATOM	4337	CB	ILE A 543	20.193	58.168	84.670	1.00	14.69
	ATOM	4338	CG1	ILE A 543	20.350	59.208	83.580	1.00	14.31

	ATOM	4339	CG2	ILE	A	543	18.785	58.292	85.281	1.00	11.05
	ATOM	4340	CD1	ILE	A	543	20.139	60.651	84.095	1.00	13.56
	ATOM	4341	N	GLN	A	544	21.362	56.237	86.729	1.00	13.09
5	ATOM	4342	CA	GLN	A	544	21.144	55.310	87.829	1.00	12.90
	ATOM	4343	C	GLN	A	544	22.017	55.629	89.015	1.00	16.30
	ATOM	4344	O	GLN	A	544	21.649	55.299	90.140	1.00	12.81
	ATOM	4345	CB	GLN	A	544	21.287	53.846	87.396	1.00	14.77
	ATOM	4346	CG	GLN	A	544	20.159	53.374	86.449	1.00	13.43
	ATOM	4347	CD	GLN	A	544	20.399	51.967	85.889	1.00	16.60
10	ATOM	4348	OE1	GLN	A	544	20.048	51.639	84.754	1.00	18.63
	ATOM	4349	NE2	GLN	A	544	20.976	51.100	86.695	1.00	7.00
	ATOM	4350	N	SER	A	545	23.143	56.296	88.748	1.00	13.80
	ATOM	4351	CA	SER	A	545	24.058	56.712	89.799	1.00	13.01
15	ATOM	4352	C	SER	A	545	23.715	58.091	90.368	1.00	17.51
	ATOM	4353	O	SER	A	545	24.429	58.656	91.189	1.00	17.76
	ATOM	4354	CB	SER	A	545	25.495	56.649	89.330	1.00	14.26
	ATOM	4355	OG	SER	A	545	25.735	55.273	89.138	1.00	15.74
	ATOM	4356	N	LYS	A	546	22.586	58.609	89.924	1.00	13.25
20	ATOM	4357	CA	LYS	A	546	22.029	59.857	90.370	1.00	14.37
	ATOM	4358	C	LYS	A	546	22.771	61.109	89.963	1.00	16.71
	ATOM	4359	O	LYS	A	546	22.770	62.106	90.698	1.00	16.30
	ATOM	4360	CB	LYS	A	546	21.850	59.890	91.878	1.00	15.93
	ATOM	4361	CG	LYS	A	546	21.320	58.602	92.470	1.00	16.80
25	ATOM	4362	CD	LYS	A	546	19.919	58.370	91.982	1.00	13.30
	ATOM	4363	CE	LYS	A	546	19.280	57.148	92.617	1.00	24.82
	ATOM	4364	NZ	LYS	A	546	18.052	56.742	91.905	1.00	17.92
	ATOM	4365	N	TRP	A	547	23.418	61.104	88.827	1.00	15.72
	ATOM	4366	CA	TRP	A	547	24.103	62.319	88.438	1.00	16.24
30	ATOM	4367	C	TRP	A	547	23.132	63.246	87.727	1.00	18.78
	ATOM	4368	O	TRP	A	547	22.760	63.007	86.605	1.00	16.35
	ATOM	4369	CB	TRP	A	547	25.261	61.999	87.505	1.00	15.42
	ATOM	4370	CG	TRP	A	547	26.211	63.156	87.344	1.00	16.84
	ATOM	4371	CD1	TRP	A	547	26.177	64.386	87.949	1.00	18.62
35	ATOM	4372	CD2	TRP	A	547	27.349	63.140	86.479	1.00	15.94
	ATOM	4373	NE1	TRP	A	547	27.267	65.115	87.543	1.00	16.22
	ATOM	4374	CE2	TRP	A	547	27.997	64.380	86.629	1.00	18.06
	ATOM	4375	CE3	TRP	A	547	27.900	62.159	85.647	1.00	16.57
	ATOM	4376	CZ2	TRP	A	547	29.186	64.662	85.928	1.00	16.68
40	ATOM	4377	CZ3	TRP	A	547	29.068	62.459	84.966	1.00	19.03
	ATOM	4378	CH2	TRP	A	547	29.693	63.709	85.079	1.00	18.04
	ATOM	4379	N	GLU	A	548	22.706	64.327	88.376	1.00	13.95
	ATOM	4380	CA	GLU	A	548	21.745	65.238	87.780	1.00	13.21
	ATOM	4381	C	GLU	A	548	22.176	65.856	86.468	1.00	17.27
45	ATOM	4382	O	GLU	A	548	21.352	66.149	85.617	1.00	18.18
	ATOM	4383	CB	GLU	A	548	21.375	66.370	88.771	1.00	15.29
	ATOM	4384	CG	GLU	A	548	20.751	65.878	90.109	1.00	19.42
	ATOM	4385	CD	GLU	A	548	20.207	67.018	90.953	1.00	33.00
	ATOM	4386	OE1	GLU	A	548	19.775	68.057	90.492	1.00	46.88
50	ATOM	4387	OE2	GLU	A	548	20.224	66.791	92.239	1.00	30.89
	ATOM	4388	N	ASP	A	549	23.477	66.105	86.285	1.00	17.99
	ATOM	4389	CA	ASP	A	549	23.929	66.735	85.054	1.00	10.58
	ATOM	4390	C	ASP	A	549	23.666	65.896	83.853	1.00	12.02
	ATOM	4391	O	ASP	A	549	23.629	66.354	82.709	1.00	18.87
55	ATOM	4392	CB	ASP	A	549	25.426	67.034	85.126	1.00	11.36
	ATOM	4393	CG	ASP	A	549	25.703	68.058	86.214	1.00	22.44
	ATOM	4394	OD1	ASP	A	549	25.396	69.227	86.150	1.00	25.44
	ATOM	4395	OD2	ASP	A	549	26.252	67.575	87.271	1.00	25.86
	ATOM	4396	N	ALA	A	550	23.511	64.624	84.122	1.00	13.24
60	ATOM	4397	CA	ALA	A	550	23.269	63.709	83.004	1.00	14.70
	ATOM	4398	C	ALA	A	550	21.845	63.707	82.473	1.00	17.89
	ATOM	4399	O	ALA	A	550	21.598	63.132	81.389	1.00	15.28
	ATOM	4400	CB	ALA	A	550	23.713	62.280	83.335	1.00	14.77
	ATOM	4401	N	ILE	A	551	20.926	64.308	83.251	1.00	16.18
	ATOM	4402	CA	ILE	A	551	19.497	64.377	82.914	1.00	16.05

	ATOM	4403	C	ILE	A	551	19.182	64.894	81.523	1.00	18.70
	ATOM	4404	O	ILE	A	551	18.441	64.290	80.736	1.00	19.01
	ATOM	4405	CB	ILE	A	551	18.701	65.139	83.971	1.00	19.52
	ATOM	4406	CG1	ILE	A	551	18.692	64.281	85.232	1.00	20.39
5	ATOM	4407	CG2	ILE	A	551	17.251	65.361	83.512	1.00	12.65
	ATOM	4408	CD1	ILE	A	551	18.167	64.995	86.485	1.00	15.78
	ATOM	4409	N	PRO	A	552	19.748	66.038	81.197	1.00	18.48
	ATOM	4410	CA	PRO	A	552	19.487	66.600	79.888	1.00	16.36
10	ATOM	4411	C	PRO	A	552	20.084	65.736	78.795	1.00	19.64
	ATOM	4412	O	PRO	A	552	19.551	65.606	77.700	1.00	16.94
	ATOM	4413	CB	PRO	A	552	20.125	67.995	79.870	1.00	18.41
	ATOM	4414	CG	PRO	A	552	21.001	68.070	81.116	1.00	24.69
	ATOM	4415	CD	PRO	A	552	20.504	66.981	82.059	1.00	17.97
	ATOM	4416	N	LEU	A	553	21.226	65.144	79.075	1.00	17.67
15	ATOM	4417	CA	LEU	A	553	21.852	64.302	78.072	1.00	15.47
	ATOM	4418	C	LEU	A	553	20.940	63.101	77.795	1.00	19.23
	ATOM	4419	O	LEU	A	553	20.704	62.655	76.681	1.00	16.64
	ATOM	4420	CB	LEU	A	553	23.275	63.819	78.501	1.00	13.81
20	ATOM	4421	CG	LEU	A	553	24.239	64.905	79.002	1.00	19.25
	ATOM	4422	CD1	LEU	A	553	25.606	64.289	79.247	1.00	17.04
	ATOM	4423	CD2	LEU	A	553	24.412	65.997	77.955	1.00	18.39
	ATOM	4424	N	ALA	A	554	20.440	62.529	78.867	1.00	17.65
	ATOM	4425	CA	ALA	A	554	19.614	61.341	78.730	1.00	15.25
25	ATOM	4426	C	ALA	A	554	18.330	61.673	78.029	1.00	19.37
	ATOM	4427	O	ALA	A	554	17.896	60.913	77.157	1.00	14.92
	ATOM	4428	CB	ALA	A	554	19.415	60.697	80.094	1.00	12.41
	ATOM	4429	N	LEU	A	555	17.746	62.821	78.410	1.00	14.59
	ATOM	4430	CA	LEU	A	555	16.514	63.224	77.750	1.00	17.50
30	ATOM	4431	C	LEU	A	555	16.686	63.445	76.249	1.00	16.25
	ATOM	4432	O	LEU	A	555	15.822	63.168	75.435	1.00	15.71
	ATOM	4433	CB	LEU	A	555	15.921	64.531	78.318	1.00	18.40
	ATOM	4434	CG	LEU	A	555	15.298	64.374	79.695	1.00	23.82
	ATOM	4435	CD1	LEU	A	555	15.153	65.771	80.333	1.00	23.08
35	ATOM	4436	CD2	LEU	A	555	13.934	63.692	79.583	1.00	18.63
	ATOM	4437	N	LYS	A	556	17.827	64.008	75.899	1.00	17.73
	ATOM	4438	CA	LYS	A	556	18.139	64.330	74.536	1.00	15.70
	ATOM	4439	C	LYS	A	556	18.285	63.076	73.702	1.00	19.09
	ATOM	4440	O	LYS	A	556	17.690	62.959	72.626	1.00	19.08
40	ATOM	4441	CB	LYS	A	556	19.380	65.206	74.530	1.00	15.52
	ATOM	4442	CG	LYS	A	556	19.729	65.769	73.163	1.00	41.74
	ATOM	4443	CD	LYS	A	556	21.020	66.590	73.160	1.00	77.82
	ATOM	4444	CE	LYS	A	556	21.851	66.449	71.883	1.00	79.74
	ATOM	4445	NZ	LYS	A	556	22.446	67.709	71.404	1.00	60.52
45	ATOM	4446	N	MET	A	557	19.089	62.128	74.207	1.00	15.27
	ATOM	4447	CA	MET	A	557	19.294	60.904	73.446	1.00	13.47
	ATOM	4448	C	MET	A	557	17.997	60.140	73.264	1.00	16.45
	ATOM	4449	O	MET	A	557	17.723	59.507	72.253	1.00	15.63
	ATOM	4450	CB	MET	A	557	20.312	59.998	74.165	1.00	14.26
50	ATOM	4451	CG	MET	A	557	20.499	58.682	73.405	1.00	13.00
	ATOM	4452	SD	MET	A	557	21.984	57.796	73.915	1.00	16.44
	ATOM	4453	CE	MET	A	557	22.027	56.574	72.596	1.00	12.39
	ATOM	4454	N	ALA	A	558	17.200	60.181	74.327	1.00	18.08
	ATOM	4455	CA	ALA	A	558	15.955	59.438	74.323	1.00	17.49
55	ATOM	4456	C	ALA	A	558	14.968	59.922	73.292	1.00	23.08
	ATOM	4457	O	ALA	A	558	14.221	59.153	72.723	1.00	21.14
	ATOM	4458	CB	ALA	A	558	15.316	59.439	75.705	1.00	16.55
	ATOM	4459	N	THR	A	559	14.951	61.220	73.082	1.00	18.89
	ATOM	4460	CA	THR	A	559	13.980	61.798	72.186	1.00	19.50
60	ATOM	4461	C	THR	A	559	14.542	62.125	70.830	1.00	22.12
	ATOM	4462	O	THR	A	559	13.804	62.219	69.862	1.00	23.28
	ATOM	4463	CB	THR	A	559	13.418	63.078	72.824	1.00	25.23
	ATOM	4464	OG1	THR	A	559	14.493	63.999	73.001	1.00	22.20
	ATOM	4465	CG2	THR	A	559	12.734	62.723	74.147	1.00	18.19
	ATOM	4466	N	GLU	A	560	15.841	62.316	70.756	1.00	16.68

	ATOM	4467	CA	GLU	A	560	16.399	62.646	69.479	1.00	18.60
	ATOM	4468	C	GLU	A	560	16.492	61.448	68.545	1.00	26.45
	ATOM	4469	O	GLU	A	560	16.714	61.608	67.344	1.00	21.93
5	ATOM	4470	CB	GLU	A	560	17.748	63.317	69.640	1.00	21.55
	ATOM	4471	CG	GLU	A	560	17.623	64.757	70.136	1.00	38.31
	ATOM	4472	CD	GLU	A	560	18.990	65.352	70.221	1.00	55.37
	ATOM	4473	OE1	GLU	A	560	20.007	64.691	70.053	1.00	40.21
	ATOM	4474	OE2	GLU	A	560	18.946	66.627	70.504	1.00	55.04
10	ATOM	4475	N	GLN	A	561	16.344	60.251	69.101	1.00	20.47
	ATOM	4476	CA	GLN	A	561	16.340	59.043	68.291	1.00	19.24
	ATOM	4477	C	GLN	A	561	15.283	58.189	68.921	1.00	18.06
	ATOM	4478	O	GLN	A	561	14.874	58.520	70.022	1.00	16.87
	ATOM	4479	CB	GLN	A	561	17.684	58.307	68.136	1.00	20.45
	ATOM	4480	CG	GLN	A	561	18.341	58.001	69.495	1.00	21.17
15	ATOM	4481	CD	GLN	A	561	17.692	56.815	70.165	1.00	21.31
	ATOM	4482	OE1	GLN	A	561	17.302	56.877	71.344	1.00	23.07
	ATOM	4483	NE2	GLN	A	561	17.543	55.758	69.379	1.00	11.21
	ATOM	4484	N	GLY	A	562	14.821	57.148	68.239	1.00	16.15
	ATOM	4485	CA	GLY	A	562	13.758	56.367	68.827	1.00	14.79
20	ATOM	4486	C	GLY	A	562	13.919	54.872	68.750	1.00	17.42
	ATOM	4487	O	GLY	A	562	12.941	54.134	68.842	1.00	22.06
	ATOM	4488	N	ARG	A	563	15.152	54.424	68.598	1.00	18.35
	ATOM	4489	CA	ARG	A	563	15.453	52.990	68.617	1.00	18.80
	ATOM	4490	C	ARG	A	563	15.023	52.501	70.018	1.00	16.67
25	ATOM	4491	O	ARG	A	563	15.518	52.925	71.085	1.00	14.27
	ATOM	4492	CB	ARG	A	563	16.949	52.812	68.321	1.00	16.78
	ATOM	4493	CG	ARG	A	563	17.394	51.363	68.218	1.00	14.43
	ATOM	4494	CD	ARG	A	563	18.911	51.276	68.095	1.00	15.41
	ATOM	4495	NE	ARG	A	563	19.423	49.897	68.119	1.00	19.33
30	ATOM	4496	CZ	ARG	A	563	20.683	49.669	67.774	1.00	19.66
	ATOM	4497	NH1	ARG	A	563	21.482	50.681	67.417	1.00	10.67
	ATOM	4498	NH2	ARG	A	563	21.148	48.428	67.779	1.00	13.38
	ATOM	4499	N	MET	A	564	14.003	51.648	70.069	1.00	13.84
	ATOM	4500	CA	MET	A	564	13.447	51.247	71.369	1.00	13.05
35	ATOM	4501	C	MET	A	564	14.443	50.787	72.419	1.00	18.69
	ATOM	4502	O	MET	A	564	14.257	50.973	73.628	1.00	12.40
	ATOM	4503	CB	MET	A	564	12.315	50.212	71.198	1.00	13.81
	ATOM	4504	CG	MET	A	564	11.159	50.825	70.424	1.00	16.20
	ATOM	4505	SD	MET	A	564	9.692	49.805	70.530	1.00	21.23
40	ATOM	4506	CE	MET	A	564	10.114	48.581	69.265	1.00	17.64
	ATOM	4507	N	LYS	A	565	15.464	50.097	71.892	1.00	16.37
	ATOM	4508	CA	LYS	A	565	16.521	49.537	72.701	1.00	13.75
	ATOM	4509	C	LYS	A	565	17.129	50.623	73.582	1.00	16.90
	ATOM	4510	O	LYS	A	565	17.493	50.376	74.735	1.00	14.97
45	ATOM	4511	CB	LYS	A	565	17.549	48.885	71.767	1.00	11.37
	ATOM	4512	CG	LYS	A	565	18.793	48.371	72.459	1.00	12.72
	ATOM	4513	CD	LYS	A	565	19.962	48.100	71.525	1.00	17.72
	ATOM	4514	CE	LYS	A	565	21.060	47.336	72.239	1.00	19.39
	ATOM	4515	NZ	LYS	A	565	22.030	46.721	71.308	1.00	15.47
50	ATOM	4516	N	PHE	A	566	17.211	51.847	73.057	1.00	12.01
	ATOM	4517	CA	PHE	A	566	17.801	52.912	73.846	1.00	12.25
	ATOM	4518	C	PHE	A	566	16.739	53.770	74.509	1.00	15.74
	ATOM	4519	O	PHE	A	566	16.843	54.177	75.661	1.00	12.91
	ATOM	4520	CB	PHE	A	566	18.641	53.814	72.932	1.00	12.87
55	ATOM	4521	CG	PHE	A	566	19.744	53.117	72.165	1.00	14.44
	ATOM	4522	CD1	PHE	A	566	20.465	52.053	72.714	1.00	13.84
	ATOM	4523	CD2	PHE	A	566	20.111	53.577	70.894	1.00	15.31
	ATOM	4524	CE1	PHE	A	566	21.510	51.434	72.014	1.00	13.86
	ATOM	4525	CE2	PHE	A	566	21.145	52.977	70.172	1.00	14.39
60	ATOM	4526	CZ	PHE	A	566	21.849	51.910	70.744	1.00	15.76
	ATOM	4527	N	THR	A	567	15.721	54.095	73.724	1.00	16.10
	ATOM	4528	CA	THR	A	567	14.642	54.966	74.184	1.00	14.70
	ATOM	4529	C	THR	A	567	13.876	54.518	75.423	1.00	14.32
	ATOM	4530	O	THR	A	567	13.615	55.315	76.346	1.00	14.88

	ATOM	4531	CB	THR	A	567	13.707	55.409	73.030	1.00	14.81
	ATOM	4532	OG1	THR	A	567	14.465	56.204	72.148	1.00	15.28
	ATOM	4533	CG2	THR	A	567	12.520	56.196	73.596	1.00	14.89
5	ATOM	4534	N	ARG	A	568	13.478	53.245	75.412	1.00	12.20
	ATOM	4535	CA	ARG	A	568	12.697	52.764	76.533	1.00	13.57
	ATOM	4536	C	ARG	A	568	13.393	52.797	77.876	1.00	14.85
	ATOM	4537	O	ARG	A	568	12.896	53.312	78.861	1.00	14.39
	ATOM	4538	CB	ARG	A	568	12.133	51.400	76.218	1.00	13.49
10	ATOM	4539	CG	ARG	A	568	11.021	51.467	75.155	1.00	14.02
	ATOM	4540	CD	ARG	A	568	10.387	50.098	74.884	1.00	9.84
	ATOM	4541	NE	ARG	A	568	9.662	49.607	76.063	1.00	13.61
	ATOM	4542	CZ	ARG	A	568	9.236	48.368	76.197	1.00	17.32
	ATOM	4543	NH1	ARG	A	568	9.471	47.427	75.275	1.00	13.23
	ATOM	4544	NH2	ARG	A	568	8.566	48.053	77.293	1.00	13.32
15	ATOM	4545	N	PRO	A	569	14.577	52.237	77.948	1.00	12.95
	ATOM	4546	CA	PRO	A	569	15.294	52.206	79.229	1.00	10.82
	ATOM	4547	C	PRO	A	569	15.810	53.574	79.653	1.00	15.13
	ATOM	4548	O	PRO	A	569	15.977	53.859	80.849	1.00	14.45
20	ATOM	4549	CB	PRO	A	569	16.479	51.262	79.000	1.00	14.29
	ATOM	4550	CG	PRO	A	569	16.245	50.553	77.659	1.00	17.55
	ATOM	4551	CD	PRO	A	569	15.224	51.385	76.897	1.00	16.15
	ATOM	4552	N	LEU	A	570	16.069	54.462	78.685	1.00	15.08
	ATOM	4553	CA	LEU	A	570	16.502	55.813	79.082	1.00	16.35
25	ATOM	4554	C	LEU	A	570	15.321	56.509	79.784	1.00	19.34
	ATOM	4555	O	LEU	A	570	15.401	57.045	80.898	1.00	16.13
	ATOM	4556	CB	LEU	A	570	16.944	56.615	77.840	1.00	16.51
	ATOM	4557	CG	LEU	A	570	18.372	56.269	77.386	1.00	18.67
	ATOM	4558	CD1	LEU	A	570	18.737	57.028	76.110	1.00	16.85
30	ATOM	4559	CD2	LEU	A	570	19.392	56.601	78.486	1.00	14.01
	ATOM	4560	N	PHE	A	571	14.161	56.435	79.129	1.00	14.02
	ATOM	4561	CA	PHE	A	571	12.978	57.007	79.732	1.00	14.67
	ATOM	4562	C	PHE	A	571	12.684	56.323	81.054	1.00	18.94
	ATOM	4563	O	PHE	A	571	12.257	56.933	82.030	1.00	18.09
35	ATOM	4564	CB	PHE	A	571	11.721	56.805	78.872	1.00	14.94
	ATOM	4565	CG	PHE	A	571	11.462	57.993	78.014	1.00	17.38
	ATOM	4566	CD1	PHE	A	571	11.035	59.194	78.591	1.00	18.00
	ATOM	4567	CD2	PHE	A	571	11.634	57.902	76.633	1.00	19.72
	ATOM	4568	CE1	PHE	A	571	10.768	60.317	77.805	1.00	17.86
40	ATOM	4569	CE2	PHE	A	571	11.358	59.016	75.836	1.00	23.80
	ATOM	4570	CZ	PHE	A	571	10.933	60.213	76.422	1.00	22.47
	ATOM	4571	N	LYS	A	572	12.839	55.023	81.080	1.00	14.21
	ATOM	4572	CA	LYS	A	572	12.530	54.361	82.325	1.00	14.07
	ATOM	4573	C	LYS	A	572	13.476	54.788	83.444	1.00	16.22
45	ATOM	4574	O	LYS	A	572	13.123	54.998	84.620	1.00	16.74
	ATOM	4575	CB	LYS	A	572	12.533	52.850	82.147	1.00	15.58
	ATOM	4576	CG	LYS	A	572	11.179	52.157	82.243	1.00	32.41
	ATOM	4577	CD	LYS	A	572	11.197	50.722	81.697	1.00	46.79
	ATOM	4578	CE	LYS	A	572	11.249	50.620	80.160	1.00	56.38
50	ATOM	4579	NZ	LYS	A	572	11.823	49.373	79.593	1.00	42.31
	ATOM	4580	N	ASP	A	573	14.735	54.914	83.089	1.00	14.00
	ATOM	4581	CA	ASP	A	573	15.671	55.286	84.148	1.00	15.33
	ATOM	4582	C	ASP	A	573	15.394	56.675	84.662	1.00	15.63
	ATOM	4583	O	ASP	A	573	15.531	56.959	85.850	1.00	15.64
55	ATOM	4584	CB	ASP	A	573	17.137	55.288	83.627	1.00	14.94
	ATOM	4585	CG	ASP	A	573	17.688	53.889	83.452	1.00	22.26
	ATOM	4586	OD1	ASP	A	573	17.054	52.891	83.773	1.00	18.66
	ATOM	4587	OD2	ASP	A	573	18.923	53.848	82.983	1.00	18.27
	ATOM	4588	N	LEU	A	574	15.090	57.554	83.708	1.00	12.68
60	ATOM	4589	CA	LEU	A	574	14.851	58.926	84.092	1.00	11.33
	ATOM	4590	C	LEU	A	574	13.611	59.053	84.970	1.00	22.78
	ATOM	4591	O	LEU	A	574	13.513	59.923	85.837	1.00	18.71
	ATOM	4592	CB	LEU	A	574	14.682	59.802	82.863	1.00	10.39
	ATOM	4593	CG	LEU	A	574	15.953	60.021	82.061	1.00	16.41
	ATOM	4594	CD1	LEU	A	574	15.501	60.352	80.630	1.00	16.48

	ATOM	4595	CD2	LEU	A	574	16.785	61.200	82.608	1.00	12.08
	ATOM	4596	N	ALA	A	575	12.638	58.173	84.726	1.00	17.79
	ATOM	4597	CA	ALA	A	575	11.437	58.235	85.500	1.00	15.87
	ATOM	4598	C	ALA	A	575	11.720	57.682	86.856	1.00	17.98
5	ATOM	4599	O	ALA	A	575	11.050	58.033	87.801	1.00	17.45
	ATOM	4600	CB	ALA	A	575	10.325	57.449	84.820	1.00	17.20
	ATOM	4601	N	ALA	A	576	12.703	56.801	86.972	1.00	14.91
	ATOM	4602	CA	ALA	A	576	13.024	56.222	88.272	1.00	12.59
	ATOM	4603	C	ALA	A	576	13.930	57.135	89.097	1.00	19.97
10	ATOM	4604	O	ALA	A	576	14.140	56.920	90.281	1.00	22.87
	ATOM	4605	CB	ALA	A	576	13.732	54.881	88.146	1.00	16.01
	ATOM	4606	N	PHE	A	577	14.474	58.152	88.469	1.00	15.13
	ATOM	4607	CA	PHE	A	577	15.337	59.105	89.161	1.00	15.19
	ATOM	4608	C	PHE	A	577	14.412	60.219	89.660	1.00	19.07
15	ATOM	4609	O	PHE	A	577	13.790	60.932	88.868	1.00	16.74
	ATOM	4610	CB	PHE	A	577	16.447	59.652	88.210	1.00	14.02
	ATOM	4611	CG	PHE	A	577	17.494	60.595	88.820	1.00	15.39
	ATOM	4612	CD1	PHE	A	577	17.678	60.707	90.202	1.00	17.32
	ATOM	4613	CD2	PHE	A	577	18.295	61.380	87.983	1.00	15.42
20	ATOM	4614	CE1	PHE	A	577	18.646	61.570	90.727	1.00	18.05
	ATOM	4615	CE2	PHE	A	577	19.272	62.236	88.483	1.00	18.23
	ATOM	4616	CZ	PHE	A	577	19.442	62.330	89.866	1.00	18.02
	ATOM	4617	N	ASP	A	578	14.285	60.335	90.983	1.00	19.21
	ATOM	4618	CA	ASP	A	578	13.394	61.327	91.584	1.00	19.27
25	ATOM	4619	C	ASP	A	578	13.568	62.692	90.981	1.00	18.95
	ATOM	4620	O	ASP	A	578	12.577	63.347	90.660	1.00	18.48
	ATOM	4621	CB	ASP	A	578	13.457	61.342	93.130	1.00	28.60
	ATOM	4622	CG	ASP	A	578	14.714	61.992	93.690	1.00	55.79
	ATOM	4623	OD1	ASP	A	578	15.779	62.135	93.064	1.00	45.74
30	ATOM	4624	OD2	ASP	A	578	14.512	62.401	94.929	1.00	67.85
	ATOM	4625	N	LYS	A	579	14.839	63.083	90.791	1.00	17.12
	ATOM	4626	CA	LYS	A	579	15.185	64.352	90.194	1.00	13.88
	ATOM	4627	C	LYS	A	579	14.693	64.569	88.758	1.00	21.03
	ATOM	4628	O	LYS	A	579	14.338	65.689	88.386	1.00	20.91
35	ATOM	4629	CB	LYS	A	579	16.669	64.621	90.293	1.00	13.46
	ATOM	4630	CG	LYS	A	579	17.159	64.570	91.724	1.00	33.01
	ATOM	4631	CD	LYS	A	579	16.890	65.878	92.442	1.00	55.78
	ATOM	4632	CE	LYS	A	579	16.292	65.662	93.816	1.00	58.11
	ATOM	4633	NZ	LYS	A	579	17.121	66.260	94.867	1.00	54.50
40	ATOM	4634	N	SER	A	580	14.646	63.553	87.897	1.00	14.45
	ATOM	4635	CA	SER	A	580	14.187	63.844	86.540	1.00	13.57
	ATOM	4636	C	SER	A	580	12.798	63.298	86.228	1.00	20.81
	ATOM	4637	O	SER	A	580	12.313	63.384	85.103	1.00	19.66
	ATOM	4638	CB	SER	A	580	15.113	63.091	85.601	1.00	12.97
45	ATOM	4639	OG	SER	A	580	15.350	61.809	86.186	1.00	17.95
	ATOM	4640	N	HIS	A	581	12.184	62.664	87.196	1.00	16.52
	ATOM	4641	CA	HIS	A	581	10.897	62.042	86.971	1.00	16.52
	ATOM	4642	C	HIS	A	581	9.816	62.866	86.281	1.00	21.39
	ATOM	4643	O	HIS	A	581	9.250	62.522	85.234	1.00	18.75
50	ATOM	4644	CB	HIS	A	581	10.389	61.487	88.289	1.00	15.62
	ATOM	4645	CG	HIS	A	581	9.034	60.927	88.100	1.00	22.66
	ATOM	4646	ND1	HIS	A	581	7.914	61.748	88.110	1.00	27.83
	ATOM	4647	CD2	HIS	A	581	8.623	59.644	87.899	1.00	27.04
	ATOM	4648	CE1	HIS	A	581	6.843	60.975	87.926	1.00	27.26
55	ATOM	4649	NE2	HIS	A	581	7.242	59.715	87.789	1.00	28.84
	ATOM	4650	N	ASP	A	582	9.515	63.986	86.884	1.00	17.59
	ATOM	4651	CA	ASP	A	582	8.491	64.831	86.322	1.00	20.99
	ATOM	4652	C	ASP	A	582	8.831	65.284	84.927	1.00	24.43
	ATOM	4653	O	ASP	A	582	8.013	65.343	84.030	1.00	21.69
60	ATOM	4654	CB	ASP	A	582	8.331	66.085	87.197	1.00	25.08
	ATOM	4655	CG	ASP	A	582	7.626	65.730	88.466	1.00	30.98
	ATOM	4656	OD1	ASP	A	582	7.129	64.638	88.645	1.00	36.19
	ATOM	4657	OD2	ASP	A	582	7.659	66.680	89.359	1.00	38.67
	ATOM	4658	N	GLN	A	583	10.075	65.649	84.762	1.00	20.38



5	ATOM	4659	CA	GLN	A	583	10.451	66.076	83.465	1.00	19.54
	ATOM	4660	C	GLN	A	583	10.423	64.938	82.431	1.00	23.45
	ATOM	4661	O	GLN	A	583	10.182	65.148	81.229	1.00	23.51
	ATOM	4662	CB	GLN	A	583	11.857	66.642	83.573	1.00	19.50
	ATOM	4663	CG	GLN	A	583	12.188	67.300	82.240	1.00	21.61
10	ATOM	4664	CD	GLN	A	583	13.503	68.019	82.370	1.00	44.67
	ATOM	4665	OE1	GLN	A	583	14.236	67.818	83.357	1.00	39.11
	ATOM	4666	NE2	GLN	A	583	13.778	68.840	81.373	1.00	40.61
	ATOM	4667	N	ALA	A	584	10.706	63.718	82.866	1.00	18.70
	ATOM	4668	CA	ALA	A	584	10.700	62.595	81.927	1.00	15.00
15	ATOM	4669	C	ALA	A	584	9.307	62.411	81.375	1.00	19.16
	ATOM	4670	O	ALA	A	584	9.101	62.211	80.176	1.00	19.25
	ATOM	4671	CB	ALA	A	584	11.043	61.288	82.642	1.00	13.44
	ATOM	4672	N	VAL	A	585	8.356	62.452	82.316	1.00	15.46
	ATOM	4673	CA	VAL	A	585	6.941	62.258	81.999	1.00	18.57
20	ATOM	4674	C	VAL	A	585	6.418	63.339	81.064	1.00	25.46
	ATOM	4675	O	VAL	A	585	5.743	63.106	80.055	1.00	23.63
	ATOM	4676	CB	VAL	A	585	6.090	62.120	83.274	1.00	23.07
	ATOM	4677	CG1	VAL	A	585	4.610	62.298	82.946	1.00	23.53
	ATOM	4678	CG2	VAL	A	585	6.340	60.775	83.966	1.00	21.15
25	ATOM	4679	N	ARG	A	586	6.792	64.564	81.405	1.00	23.81
	ATOM	4680	CA	ARG	A	586	6.395	65.688	80.615	1.00	22.41
	ATOM	4681	C	ARG	A	586	6.974	65.628	79.223	1.00	22.13
	ATOM	4682	O	ARG	A	586	6.283	65.909	78.254	1.00	20.69
	ATOM	4683	CB	ARG	A	586	6.695	67.000	81.329	1.00	21.27
30	ATOM	4684	CG	ARG	A	586	6.573	68.251	80.461	1.00	39.32
	ATOM	4685	CD	ARG	A	586	7.134	69.519	81.129	1.00	45.58
	ATOM	4686	NE	ARG	A	586	7.498	69.270	82.525	1.00	68.78
	ATOM	4687	CZ	ARG	A	586	8.712	69.427	83.074	1.00	82.97
	ATOM	4688	NH1	ARG	A	586	9.767	69.873	82.357	1.00	50.55
35	ATOM	4689	NH2	ARG	A	586	8.842	69.129	84.383	1.00	31.22
	ATOM	4690	N	THR	A	587	8.231	65.247	79.095	1.00	19.40
	ATOM	4691	CA	THR	A	587	8.856	65.157	77.781	1.00	18.84
	ATOM	4692	C	THR	A	587	8.150	64.170	76.882	1.00	20.71
	ATOM	4693	O	THR	A	587	7.885	64.391	75.702	1.00	23.03
40	ATOM	4694	CB	THR	A	587	10.313	64.746	77.975	1.00	23.70
	ATOM	4695	OG1	THR	A	587	10.887	65.693	78.846	1.00	21.83
	ATOM	4696	CG2	THR	A	587	11.048	64.672	76.654	1.00	21.38
	ATOM	4697	N	TYR	A	588	7.822	63.043	77.464	1.00	21.74
	ATOM	4698	CA	TYR	A	588	7.137	62.033	76.693	1.00	19.43
45	ATOM	4699	C	TYR	A	588	5.808	62.573	76.151	1.00	24.31
	ATOM	4700	O	TYR	A	588	5.450	62.483	74.963	1.00	26.68
	ATOM	4701	CB	TYR	A	588	6.846	60.854	77.638	1.00	18.46
	ATOM	4702	CG	TYR	A	588	5.842	59.904	77.014	1.00	21.76
	ATOM	4703	CD1	TYR	A	588	6.169	59.136	75.891	1.00	22.44
50	ATOM	4704	CD2	TYR	A	588	4.549	59.808	77.540	1.00	22.19
	ATOM	4705	CE1	TYR	A	588	5.217	58.274	75.335	1.00	26.93
	ATOM	4706	CE2	TYR	A	588	3.584	58.961	76.999	1.00	19.19
	ATOM	4707	CZ	TYR	A	588	3.936	58.191	75.890	1.00	25.45
	ATOM	4708	OH	TYR	A	588	3.008	57.335	75.359	1.00	24.42
55	ATOM	4709	N	GLN	A	589	5.039	63.110	77.088	1.00	23.42
	ATOM	4710	CA	GLN	A	589	3.727	63.642	76.762	1.00	22.93
	ATOM	4711	C	GLN	A	589	3.806	64.594	75.596	1.00	20.18
	ATOM	4712	O	GLN	A	589	2.957	64.626	74.707	1.00	23.55
	ATOM	4713	CB	GLN	A	589	3.139	64.384	77.981	1.00	25.07
60	ATOM	4714	CG	GLN	A	589	2.683	63.449	79.119	1.00	21.54
	ATOM	4715	CD	GLN	A	589	1.470	62.587	78.765	1.00	41.81
	ATOM	4716	OE1	GLN	A	589	1.197	62.264	77.606	1.00	37.70
	ATOM	4717	NE2	GLN	A	589	0.721	62.186	79.779	1.00	58.94
	ATOM	4718	N	GLU	A	590	4.844	65.400	75.649	1.00	17.93
	ATOM	4719	CA	GLU	A	590	5.097	66.416	74.644	1.00	19.01
	ATOM	4720	C	GLU	A	590	5.566	65.826	73.363	1.00	26.93
	ATOM	4721	O	GLU	A	590	5.393	66.453	72.312	1.00	23.86
	ATOM	4722	CB	GLU	A	590	6.176	67.452	75.021	1.00	20.73

	ATOM	4723	CG	GLU	A	590	5.706	68.358	76.180	1.00	36.88
	ATOM	4724	CD	GLU	A	590	6.810	69.187	76.769	1.00	62.73
	ATOM	4725	OE1	GLU	A	590	7.988	69.112	76.403	1.00	55.19
	ATOM	4726	OE2	GLU	A	590	6.341	69.975	77.718	1.00	40.10
5	ATOM	4727	N	HIS	A	591	6.203	64.666	73.476	1.00	23.79
	ATOM	4728	CA	HIS	A	591	6.700	64.086	72.250	1.00	23.24
	ATOM	4729	C	HIS	A	591	5.818	63.013	71.689	1.00	20.50
	ATOM	4730	O	HIS	A	591	5.965	62.619	70.541	1.00	24.92
	ATOM	4731	CB	HIS	A	591	8.076	63.446	72.481	1.00	22.84
10	ATOM	4732	CG	HIS	A	591	9.175	64.446	72.384	1.00	25.11
	ATOM	4733	ND1	HIS	A	591	9.381	65.385	73.378	1.00	28.84
	ATOM	4734	CD2	HIS	A	591	10.092	64.667	71.403	1.00	26.79
	ATOM	4735	CE1	HIS	A	591	10.408	66.147	72.984	1.00	27.18
	ATOM	4736	NE2	HIS	A	591	10.853	65.745	71.796	1.00	26.51
15	ATOM	4737	N	LYS	A	592	4.939	62.487	72.503	1.00	19.36
	ATOM	4738	CA	LYS	A	592	4.202	61.366	71.988	1.00	19.14
	ATOM	4739	C	LYS	A	592	3.553	61.382	70.613	1.00	28.03
	ATOM	4740	O	LYS	A	592	3.592	60.409	69.856	1.00	23.29
	ATOM	4741	CB	LYS	A	592	3.431	60.669	73.048	1.00	18.80
20	ATOM	4742	CG	LYS	A	592	2.321	61.545	73.519	1.00	26.37
	ATOM	4743	CD	LYS	A	592	1.414	60.713	74.400	1.00	33.29
	ATOM	4744	CE	LYS	A	592	0.018	61.301	74.523	1.00	45.98
	ATOM	4745	NZ	LYS	A	592	-0.530	61.163	75.874	1.00	25.02
	ATOM	4746	N	ALA	A	593	2.905	62.494	70.300	1.00	29.63
25	ATOM	4747	CA	ALA	A	593	2.225	62.650	69.016	1.00	26.27
	ATOM	4748	C	ALA	A	593	3.157	62.524	67.808	1.00	26.27
	ATOM	4749	O	ALA	A	593	2.741	62.121	66.732	1.00	28.39
	ATOM	4750	CB	ALA	A	593	1.558	64.018	68.998	1.00	24.94
30	ATOM	4751	N	SER	A	594	4.420	62.891	67.988	1.00	21.56
	ATOM	4752	CA	SER	A	594	5.404	62.867	66.930	1.00	22.18
	ATOM	4753	C	SER	A	594	6.238	61.590	66.949	1.00	22.38
	ATOM	4754	O	SER	A	594	7.160	61.444	66.137	1.00	20.87
	ATOM	4755	CB	SER	A	594	6.352	64.049	67.098	1.00	29.27
	ATOM	4756	OG	SER	A	594	7.286	63.814	68.156	1.00	45.26
35	ATOM	4757	N	MET	A	595	5.922	60.678	67.858	1.00	17.72
	ATOM	4758	CA	MET	A	595	6.732	59.453	67.945	1.00	17.90
	ATOM	4759	C	MET	A	595	6.240	58.295	67.114	1.00	21.97
	ATOM	4760	O	MET	A	595	5.105	58.257	66.683	1.00	26.36
	ATOM	4761	CB	MET	A	595	6.717	58.931	69.396	1.00	17.35
40	ATOM	4762	CG	MET	A	595	7.616	59.720	70.321	1.00	18.64
	ATOM	4763	SD	MET	A	595	7.451	59.068	71.999	1.00	25.54
	ATOM	4764	CE	MET	A	595	7.775	60.523	72.990	1.00	32.21
	ATOM	4765	N	HIS	A	596	7.066	57.284	66.954	1.00	15.02
	ATOM	4766	CA	HIS	A	596	6.593	56.105	66.258	1.00	16.62
45	ATOM	4767	C	HIS	A	596	5.458	55.524	67.111	1.00	19.77
	ATOM	4768	O	HIS	A	596	5.474	55.605	68.324	1.00	19.53
	ATOM	4769	CB	HIS	A	596	7.756	55.103	66.052	1.00	17.44
	ATOM	4770	CG	HIS	A	596	7.280	53.844	65.414	1.00	20.36
	ATOM	4771	ND1	HIS	A	596	7.474	53.623	64.059	1.00	22.76
50	ATOM	4772	CD2	HIS	A	596	6.582	52.790	65.937	1.00	19.37
	ATOM	4773	CE1	HIS	A	596	6.928	52.443	63.770	1.00	21.23
	ATOM	4774	NE2	HIS	A	596	6.375	51.935	64.879	1.00	22.61
	ATOM	4775	N	PRO	A	597	4.425	54.948	66.507	1.00	19.72
	ATOM	4776	CA	PRO	A	597	3.284	54.409	67.233	1.00	17.32
55	ATOM	4777	C	PRO	A	597	3.515	53.268	68.221	1.00	22.24
	ATOM	4778	O	PRO	A	597	2.887	53.165	69.277	1.00	20.86
	ATOM	4779	CB	PRO	A	597	2.228	54.031	66.181	1.00	15.13
	ATOM	4780	CG	PRO	A	597	2.989	53.918	64.893	1.00	20.16
	ATOM	4781	CD	PRO	A	597	4.195	54.843	65.045	1.00	19.53
60	ATOM	4782	N	VAL	A	598	4.381	52.340	67.895	1.00	17.95
	ATOM	4783	CA	VAL	A	598	4.575	51.277	68.868	1.00	17.06
	ATOM	4784	C	VAL	A	598	5.463	51.830	69.993	1.00	16.39
	ATOM	4785	O	VAL	A	598	5.188	51.629	71.176	1.00	18.72
	ATOM	4786	CB	VAL	A	598	5.175	50.039	68.180	1.00	20.87

	ATOM	4787	CG1	VAL	A	598	5.739	48.974	69.142	1.00	15.98
	ATOM	4788	CG2	VAL	A	598	4.169	49.498	67.132	1.00	17.75
	ATOM	4789	N	THR	A	599	6.521	52.548	69.605	1.00	17.91
5	ATOM	4790	CA	THR	A	599	7.370	53.125	70.636	1.00	20.42
	ATOM	4791	C	THR	A	599	6.544	53.965	71.615	1.00	25.40
	ATOM	4792	O	THR	A	599	6.683	53.931	72.848	1.00	18.93
	ATOM	4793	CB	THR	A	599	8.436	53.999	69.997	1.00	17.80
	ATOM	4794	OG1	THR	A	599	9.082	53.238	68.989	1.00	19.92
10	ATOM	4795	CG2	THR	A	599	9.399	54.486	71.090	1.00	17.59
	ATOM	4796	N	ALA	A	600	5.657	54.749	71.018	1.00	18.73
	ATOM	4797	CA	ALA	A	600	4.798	55.590	71.796	1.00	17.65
	ATOM	4798	C	ALA	A	600	3.971	54.764	72.739	1.00	20.00
	ATOM	4799	O	ALA	A	600	3.867	55.053	73.932	1.00	21.50
15	ATOM	4800	CB	ALA	A	600	3.869	56.344	70.879	1.00	19.26
	ATOM	4801	N	MET	A	601	3.344	53.731	72.218	1.00	17.31
	ATOM	4802	CA	MET	A	601	2.539	52.928	73.126	1.00	15.28
	ATOM	4803	C	MET	A	601	3.409	52.308	74.224	1.00	17.52
	ATOM	4804	O	MET	A	601	3.018	52.245	75.371	1.00	15.39
20	ATOM	4805	CB	MET	A	601	1.761	51.815	72.369	1.00	16.44
	ATOM	4806	CG	MET	A	601	1.008	50.813	73.242	1.00	20.22
	ATOM	4807	SD	MET	A	601	1.962	49.492	74.103	1.00	24.22
	ATOM	4808	CE	MET	A	601	2.327	48.392	72.695	1.00	18.59
	ATOM	4809	N	LEU	A	602	4.580	51.778	73.889	1.00	16.21
25	ATOM	4810	CA	LEU	A	602	5.389	51.117	74.924	1.00	16.19
	ATOM	4811	C	LEU	A	602	5.940	52.055	76.027	1.00	18.15
	ATOM	4812	O	LEU	A	602	5.962	51.722	77.214	1.00	18.36
	ATOM	4813	CB	LEU	A	602	6.507	50.267	74.269	1.00	14.21
	ATOM	4814	CG	LEU	A	602	5.987	49.058	73.508	1.00	18.02
30	ATOM	4815	CD1	LEU	A	602	7.100	48.467	72.642	1.00	17.78
	ATOM	4816	CD2	LEU	A	602	5.502	48.030	74.515	1.00	21.84
	ATOM	4817	N	VAL	A	603	6.426	53.224	75.617	1.00	15.71
	ATOM	4818	CA	VAL	A	603	6.962	54.208	76.549	1.00	15.67
	ATOM	4819	C	VAL	A	603	5.877	54.648	77.537	1.00	17.35
35	ATOM	4820	O	VAL	A	603	6.093	54.733	78.741	1.00	18.72
	ATOM	4821	CB	VAL	A	603	7.665	55.345	75.807	1.00	19.16
	ATOM	4822	CG1	VAL	A	603	8.035	56.477	76.764	1.00	15.61
	ATOM	4823	CG2	VAL	A	603	8.943	54.837	75.115	1.00	17.56
	ATOM	4824	N	GLY	A	604	4.661	54.851	77.027	1.00	14.92
40	ATOM	4825	CA	GLY	A	604	3.535	55.262	77.879	1.00	14.02
	ATOM	4826	C	GLY	A	604	3.239	54.206	78.898	1.00	17.85
	ATOM	4827	O	GLY	A	604	2.984	54.443	80.075	1.00	21.21
	ATOM	4828	N	LYS	A	605	3.306	52.987	78.426	1.00	16.57
	ATOM	4829	CA	LYS	A	605	3.127	51.873	79.330	1.00	18.08
45	ATOM	4830	C	LYS	A	605	4.251	51.892	80.348	1.00	22.76
	ATOM	4831	O	LYS	A	605	4.034	51.859	81.558	1.00	26.27
	ATOM	4832	CB	LYS	A	605	3.190	50.541	78.607	1.00	22.73
	ATOM	4833	CG	LYS	A	605	1.870	49.811	78.714	1.00	40.15
	ATOM	4834	CD	LYS	A	605	1.919	48.377	78.211	1.00	57.40
50	ATOM	4835	CE	LYS	A	605	1.068	47.461	79.074	1.00	75.31
	ATOM	4836	NZ	LYS	A	605	1.808	46.387	79.758	1.00	74.64
	ATOM	4837	N	ASP	A	606	5.470	51.943	79.836	1.00	17.17
	ATOM	4838	CA	ASP	A	606	6.607	51.972	80.718	1.00	16.61
	ATOM	4839	C	ASP	A	606	6.442	53.059	81.738	1.00	19.46
55	ATOM	4840	O	ASP	A	606	6.790	52.848	82.884	1.00	19.57
	ATOM	4841	CB	ASP	A	606	7.945	52.255	79.990	1.00	16.98
	ATOM	4842	CG	ASP	A	606	8.365	51.063	79.187	1.00	21.21
	ATOM	4843	OD1	ASP	A	606	7.944	49.933	79.376	1.00	20.21
	ATOM	4844	OD2	ASP	A	606	9.189	51.355	78.249	1.00	18.07
60	ATOM	4845	N	LEU	A	607	5.974	54.207	81.306	1.00	16.61
	ATOM	4846	CA	LEU	A	607	5.863	55.352	82.211	1.00	20.64
	ATOM	4847	C	LEU	A	607	4.586	55.384	83.026	1.00	27.05
	ATOM	4848	O	LEU	A	607	4.361	56.274	83.862	1.00	23.83
	ATOM	4849	CB	LEU	A	607	5.991	56.641	81.388	1.00	23.11
	ATOM	4850	CG	LEU	A	607	7.377	57.301	81.464	1.00	28.84

	ATOM	4851	CD1	LEU	A	607	8.508	56.323	81.711	1.00	29.33
	ATOM	4852	CD2	LEU	A	607	7.650	58.116	80.214	1.00	19.22
	ATOM	4853	N	LYS	A	608	3.739	54.409	82.739	1.00	21.45
	ATOM	4854	CA	LYS	A	608	2.504	54.308	83.446	1.00	22.51
5	ATOM	4855	C	LYS	A	608	1.657	55.529	83.202	1.00	31.79
	ATOM	4856	O	LYS	A	608	0.933	56.008	84.076	1.00	34.10
	ATOM	4857	CB	LYS	A	608	2.810	54.200	84.918	1.00	24.85
	ATOM	4858	CG	LYS	A	608	3.190	52.782	85.308	1.00	45.51
10	ATOM	4859	CD	LYS	A	608	3.932	52.718	86.635	1.00	76.45
	ATOM	4860	CE	LYS	A	608	4.251	51.291	87.078	1.00	100.00
	ATOM	4861	NZ	LYS	A	608	4.137	51.050	88.533	1.00	100.00
	ATOM	4862	N	VAL	A	609	1.781	56.084	82.021	1.00	29.53
	ATOM	4863	CA	VAL	A	609	0.962	57.231	81.738	1.00	32.22
	ATOM	4864	C	VAL	A	609	-0.257	56.755	80.958	1.00	47.38
15	ATOM	4865	O	VAL	A	609	-0.150	55.800	80.186	1.00	49.22
	ATOM	4866	CB	VAL	A	609	1.679	58.328	80.966	1.00	38.27
	ATOM	4867	CG1	VAL	A	609	3.188	58.240	81.067	1.00	38.12
	ATOM	4868	CG2	VAL	A	609	1.227	58.313	79.515	1.00	39.79
20	ATOM	4869	N	ASP	A	610	-1.402	57.415	81.173	1.00	49.29
	ATOM	4870	CA	ASP	A	610	-2.675	57.124	80.510	1.00	98.66
	ATOM	4871	C	ASP	A	610	-3.541	56.207	81.365	1.00	100.00
	ATOM	4872	O	ASP	A	610	-3.950	56.568	82.470	1.00	78.31
	ATOM	4873	CB	ASP	A	610	-2.550	56.631	79.044	1.00	100.00
	ATOM	4874	CG	ASP	A	610	-1.930	57.631	78.091	1.00	100.00
25	ATOM	4875	OD1	ASP	A	610	-2.251	58.807	78.062	1.00	99.48
	ATOM	4876	OD2	ASP	A	610	-1.019	57.111	77.288	1.00	100.00
	TER	4877		ASP	A	610					
	ATOM	4878	ZN2+	ZN	Z	1	16.972	39.340	64.102	1.00	16.33
30	ATOM	4879	YB3+	YB	Y	1	42.669	51.366	99.201	1.00	18.06
	ATOM	4880	YB3+	YB	Y	2	-13.732	57.497	52.155	0.50	46.53
	ATOM	4881	YB3+	YB	Y	3	-10.443	58.443	52.469	0.50	30.25
	ATOM	4882	N2	BES	B	1	13.712	41.186	63.145	1.00	25.72
	ATOM	4883	C1	BES	B	1	14.450	41.733	64.255	1.00	24.13
35	ATOM	4884	C6	BES	B	1	13.749	42.939	64.880	1.00	23.84
	ATOM	4885	C7	BES	B	1	12.300	42.727	65.283	1.00	19.51
	ATOM	4886	C8	BES	B	1	11.297	43.571	64.799	1.00	18.42
	ATOM	4887	C12	BES	B	1	11.934	41.717	66.170	1.00	19.27
	ATOM	4888	C9	BES	B	1	9.990	43.454	65.227	1.00	16.90
40	ATOM	4889	C11	BES	B	1	10.614	41.580	66.600	1.00	19.17
	ATOM	4890	C10	BES	B	1	9.639	42.451	66.135	1.00	18.42
	ATOM	4891	C2	BES	B	1	15.881	42.065	63.795	1.00	21.80
	ATOM	4892	O2	BES	B	1	16.369	41.004	62.999	1.00	18.60
	ATOM	4893	C3	BES	B	1	16.741	42.156	65.063	1.00	23.33
45	ATOM	4894	O3	BES	B	1	16.932	41.185	65.803	1.00	25.68
	ATOM	4895	N1	BES	B	1	17.280	43.376	65.250	1.00	21.90
	ATOM	4896	C4	BES	B	1	18.157	43.613	66.390	1.00	24.18
	ATOM	4897	C13	BES	B	1	19.568	43.595	65.855	1.00	22.49
	ATOM	4898	C14	BES	B	1	20.669	42.812	66.576	1.00	24.23
50	ATOM	4899	C15	BES	B	1	20.210	41.770	67.577	1.00	23.32
	ATOM	4900	C16	BES	B	1	21.692	42.287	65.590	1.00	22.52
	ATOM	4901	C5	BES	B	1	17.840	45.000	67.053	1.00	25.70
	ATOM	4902	O1	BES	B	1	17.160	45.848	66.348	1.00	22.63
	ATOM	4903	O4	BES	B	1	18.206	45.226	68.192	1.00	26.52
55	ATOM	4904	CG	IMD	I	1	26.142	42.633	80.576	1.00	14.44
	ATOM	4905	ND1	IMD	I	1	25.962	42.811	79.218	1.00	15.15
	ATOM	4906	CD2	IMD	I	1	27.444	42.291	80.744	1.00	13.81
	ATOM	4907	CE1	IMD	I	1	27.096	42.555	78.588	1.00	9.17
	ATOM	4908	NE2	IMD	I	1	28.014	42.249	79.494	1.00	21.14
60	ATOM	4909	CB	ACE	C	1	13.753	12.531	68.686	1.00	39.29
	ATOM	4910	CG	ACE	C	1	13.041	13.755	69.176	1.00	52.31
	ATOM	4911	OD1	ACE	C	1	13.310	14.951	68.885	1.00	21.34
	ATOM	4912	OD2	ACE	C	1	12.075	13.324	69.958	1.00	27.10
	ATOM	4913	O	HOH	W	1	23.792	34.258	75.188	1.00	13.41
	ATOM	4914	O	HOH	W	2	41.402	41.645	77.736	1.00	18.41

	ATOM	4915	O	HOH	W	3	21.452	48.008	79.289	1.00	14.29
	ATOM	4916	O	HOH	W	4	7.395	22.508	68.980	1.00	15.42
	ATOM	4917	O	HOH	W	5	8.875	45.610	71.521	1.00	15.01
5	ATOM	4918	O	HOH	W	6	18.318	15.775	81.560	1.00	42.99
	ATOM	4919	O	HOH	W	7	30.607	45.406	73.230	1.00	16.49
	ATOM	4920	O	HOH	W	8	2.151	35.326	56.132	1.00	20.69
	ATOM	4921	O	HOH	W	9	26.371	45.237	72.729	1.00	32.21
	ATOM	4922	O	HOH	W	10	10.117	47.411	58.465	1.00	19.66
10	ATOM	4923	O	HOH	W	11	24.576	45.901	81.764	1.00	15.98
	ATOM	4924	O	HOH	W	12	21.400	39.522	70.350	1.00	17.59
	ATOM	4925	O	HOH	W	13	32.755	39.688	76.763	1.00	14.73
	ATOM	4926	O	HOH	W	14	15.723	43.292	73.593	1.00	28.15
	ATOM	4927	O	HOH	W	15	33.012	53.990	68.029	1.00	20.61
15	ATOM	4928	O	HOH	W	16	21.672	48.368	86.318	1.00	18.35
	ATOM	4929	O	HOH	W	17	11.843	66.293	86.775	1.00	20.28
	ATOM	4930	O	HOH	W	18	-7.370	39.258	72.858	1.00	100.00
	ATOM	4931	O	HOH	W	19	10.951	58.853	90.712	1.00	31.18
	ATOM	4932	O	HOH	W	20	7.991	67.991	69.688	1.00	51.29
20	ATOM	4933	O	HOH	W	21	27.534	25.933	83.686	1.00	30.42
	ATOM	4934	O	HOH	W	22	14.754	47.886	81.192	1.00	91.59
	ATOM	4935	O	HOH	W	23	35.638	66.681	74.616	1.00	18.43
	ATOM	4936	O	HOH	W	24	14.917	46.651	71.292	1.00	29.09
	ATOM	4937	O	HOH	W	25	24.339	72.545	82.858	1.00	27.38
25	ATOM	4938	O	HOH	W	26	3.954	59.653	64.218	1.00	29.75
	ATOM	4939	O	HOH	W	27	0.174	30.326	72.099	1.00	20.53
	ATOM	4940	O	HOH	W	28	17.250	55.520	87.251	1.00	15.14
	ATOM	4941	O	HOH	W	29	2.640	38.007	61.525	1.00	15.01
	ATOM	4942	O	HOH	W	30	10.861	36.115	89.266	1.00	26.76
30	ATOM	4943	O	HOH	W	31	30.988	44.243	70.800	1.00	37.98
	ATOM	4944	O	HOH	W	32	9.095	44.675	75.314	1.00	24.97
	ATOM	4945	O	HOH	W	33	29.917	47.569	70.312	1.00	33.43
	ATOM	4946	O	HOH	W	34	23.537	45.186	73.070	1.00	21.89
	ATOM	4947	O	HOH	W	35	13.919	30.086	87.520	1.00	27.60
35	ATOM	4948	O	HOH	W	36	24.004	28.230	84.950	1.00	54.91
	ATOM	4949	O	HOH	W	37	44.740	56.907	93.797	1.00	39.70
	ATOM	4950	O	HOH	W	38	36.453	36.919	75.700	1.00	12.06
	ATOM	4951	O	HOH	W	39	27.587	65.302	75.920	1.00	21.02
	ATOM	4952	O	HOH	W	40	23.077	39.811	87.155	1.00	38.48
40	ATOM	4953	O	HOH	W	41	3.661	37.055	59.039	1.00	17.86
	ATOM	4954	O	HOH	W	42	21.794	20.673	79.219	1.00	20.60
	ATOM	4955	O	HOH	W	43	6.324	36.055	87.167	1.00	30.35
	ATOM	4956	O	HOH	W	44	24.649	34.194	44.975	1.00	52.51
	ATOM	4957	O	HOH	W	45	20.611	44.717	78.685	1.00	27.41
45	ATOM	4958	O	HOH	W	46	19.969	50.884	89.461	1.00	29.62
	ATOM	4959	O	HOH	W	47	30.940	66.808	78.811	1.00	15.76
	ATOM	4960	O	HOH	W	48	26.539	55.260	66.886	1.00	19.97
	ATOM	4961	O	HOH	W	49	7.314	45.436	77.867	1.00	35.07
	ATOM	4962	O	HOH	W	50	10.579	54.800	67.603	1.00	15.62
50	ATOM	4963	O	HOH	W	51	28.138	31.371	66.611	1.00	15.08
	ATOM	4964	O	HOH	W	52	26.292	33.348	75.129	1.00	15.49
	ATOM	4965	O	HOH	W	53	15.204	48.508	69.331	1.00	16.03
	ATOM	4966	O	HOH	W	54	9.451	57.282	68.158	1.00	20.39
	ATOM	4967	O	HOH	W	55	34.923	67.738	77.001	1.00	15.06
55	ATOM	4968	O	HOH	W	56	10.193	53.763	78.443	1.00	19.23
	ATOM	4969	O	HOH	W	57	35.246	32.562	64.227	1.00	27.89
	ATOM	4970	O	HOH	W	58	7.230	48.517	65.509	1.00	17.57
	ATOM	4971	O	HOH	W	59	15.707	29.269	62.146	1.00	16.76
	ATOM	4972	O	HOH	W	60	22.703	46.209	83.610	1.00	14.72
60	ATOM	4973	O	HOH	W	61	-5.573	31.742	67.048	1.00	67.53
	ATOM	4974	O	HOH	W	62	23.958	46.448	79.118	1.00	14.95
	ATOM	4975	O	HOH	W	63	-4.387	51.289	59.224	1.00	29.13
	ATOM	4976	O	HOH	W	64	1.494	43.916	68.255	1.00	21.32
	ATOM	4977	O	HOH	W	65	15.236	37.185	89.202	1.00	24.71
	ATOM	4978	O	HOH	W	66	8.901	44.256	58.842	1.00	22.41

	ATOM	4979	O	HOH	W	67	8.741	44.059	69.410	1.00	19.23
	ATOM	4980	O	HOH	W	68	10.536	31.361	71.130	1.00	17.26
	ATOM	4981	O	HOH	W	69	14.270	66.977	85.494	1.00	24.71
5	ATOM	4982	O	HOH	W	70	19.324	33.013	51.120	1.00	31.37
	ATOM	4983	O	HOH	W	71	22.888	42.589	71.900	1.00	32.53
	ATOM	4984	O	HOH	W	72	18.199	19.792	50.850	1.00	95.99
	ATOM	4985	O	HOH	W	73	-2.766	36.708	53.654	1.00	25.61
	ATOM	4986	O	HOH	W	74	40.154	44.352	89.098	1.00	18.04
10	ATOM	4987	O	HOH	W	75	43.798	45.414	76.216	1.00	42.09
	ATOM	4988	O	HOH	W	76	2.095	33.636	67.241	1.00	16.77
	ATOM	4989	O	HOH	W	77	17.697	47.834	68.674	1.00	15.55
	ATOM	4990	O	HOH	W	78	0.487	49.526	68.994	1.00	40.71
	ATOM	4991	O	HOH	W	79	24.958	57.027	93.315	1.00	15.83
15	ATOM	4992	O	HOH	W	80	16.157	27.572	83.036	1.00	20.90
	ATOM	4993	O	HOH	W	81	5.222	49.330	63.415	1.00	17.36
	ATOM	4994	O	HOH	W	82	16.211	37.941	52.836	1.00	19.88
	ATOM	4995	O	HOH	W	83	32.789	43.179	86.654	1.00	20.34
	ATOM	4996	O	HOH	W	84	9.298	48.075	81.153	1.00	54.83
20	ATOM	4997	O	HOH	W	85	29.454	36.152	82.527	1.00	29.31
	ATOM	4998	O	HOH	W	86	41.926	50.859	91.024	1.00	26.91
	ATOM	4999	O	HOH	W	87	42.353	47.486	84.905	1.00	21.77
	ATOM	5000	O	HOH	W	88	7.099	45.738	66.261	1.00	16.80
	ATOM	5001	O	HOH	W	89	-7.189	40.950	62.864	1.00	18.87
25	ATOM	5002	O	HOH	W	90	-0.532	35.957	55.006	1.00	30.96
	ATOM	5003	O	HOH	W	91	2.498	58.239	62.223	1.00	33.64
	ATOM	5004	O	HOH	W	92	8.030	54.347	85.172	1.00	36.67
	ATOM	5005	O	HOH	W	93	-9.086	47.257	64.010	1.00	25.14
	ATOM	5006	O	HOH	W	94	7.634	23.157	71.565	1.00	26.48
30	ATOM	5007	O	HOH	W	95	36.802	57.687	75.942	1.00	33.51
	ATOM	5008	O	HOH	W	96	31.266	28.847	81.561	1.00	33.78
	ATOM	5009	O	HOH	W	97	42.718	53.265	90.455	1.00	18.15
	ATOM	5010	O	HOH	W	98	25.175	49.362	94.064	1.00	38.55
	ATOM	5011	O	HOH	W	99	-1.458	36.897	71.377	1.00	21.47
35	ATOM	5012	O	HOH	W	100	36.955	22.462	67.101	1.00	62.30
	ATOM	5013	O	HOH	W	101	17.777	47.785	75.841	1.00	20.17
	ATOM	5014	O	HOH	W	102	17.194	41.841	54.112	1.00	16.39
	ATOM	5015	O	HOH	W	103	-1.972	55.370	57.254	1.00	25.11
	ATOM	5016	O	HOH	W	104	27.602	40.677	72.586	1.00	21.30
40	ATOM	5017	O	HOH	W	105	37.435	51.467	61.104	1.00	65.38
	ATOM	5018	O	HOH	W	106	1.256	32.447	69.628	1.00	23.44
	ATOM	5019	O	HOH	W	107	9.241	16.192	63.327	1.00	48.00
	ATOM	5020	O	HOH	W	108	0.854	36.054	64.035	1.00	18.60
	ATOM	5021	O	HOH	W	109	18.727	44.131	84.651	1.00	24.89
45	ATOM	5022	O	HOH	W	110	26.098	18.961	78.803	1.00	24.48
	ATOM	5023	O	HOH	W	111	19.158	42.699	78.273	1.00	28.07
	ATOM	5024	O	HOH	W	112	38.525	39.961	90.164	1.00	49.63
	ATOM	5025	O	HOH	W	113	18.603	45.487	82.264	1.00	21.64
	ATOM	5026	O	HOH	W	114	-9.935	47.106	60.568	1.00	27.24
50	ATOM	5027	O	HOH	W	115	12.837	36.710	59.433	1.00	15.13
	ATOM	5028	O	HOH	W	116	33.438	65.032	85.997	1.00	32.21
	ATOM	5029	O	HOH	W	117	38.122	36.535	73.494	1.00	12.50
	ATOM	5030	O	HOH	W	118	39.258	66.537	78.047	1.00	18.65
	ATOM	5031	O	HOH	W	119	6.554	34.671	88.987	1.00	15.86
55	ATOM	5032	O	HOH	W	120	13.095	46.874	73.346	1.00	30.35
	ATOM	5033	O	HOH	W	121	32.660	36.335	82.732	1.00	35.47
	ATOM	5034	O	HOH	W	122	9.605	28.610	88.505	1.00	19.15
	ATOM	5035	O	HOH	W	123	27.330	46.500	69.982	1.00	28.22
	ATOM	5036	O	HOH	W	124	21.495	44.397	85.333	1.00	27.70
60	ATOM	5037	O	HOH	W	125	25.964	67.884	90.313	1.00	24.59
	ATOM	5038	O	HOH	W	126	39.654	61.279	78.612	1.00	34.08
	ATOM	5039	O	HOH	W	127	28.830	50.839	62.528	1.00	22.84
	ATOM	5040	O	HOH	W	128	-2.192	25.904	60.928	1.00	48.99
	ATOM	5041	O	HOH	W	129	12.941	37.733	62.998	1.00	17.09
	ATOM	5042	O	HOH	W	130	17.656	39.494	55.302	1.00	23.77

	ATOM	5043	O	HOH W 131	5.616	31.767	78.251	1.00	22.11
	ATOM	5044	O	HOH W 132	11.134	59.317	68.286	1.00	24.37
	ATOM	5045	O	HOH W 133	7.669	46.689	57.186	1.00	19.15
5	ATOM	5046	O	HOH W 134	24.475	34.718	86.839	1.00	32.19
	ATOM	5047	O	HOH W 135	23.517	44.933	68.463	1.00	20.25
	ATOM	5048	O	HOH W 136	26.942	39.752	68.390	1.00	15.96
	ATOM	5049	O	HOH W 137	8.029	20.133	84.468	1.00	16.28
	ATOM	5050	O	HOH W 138	-0.771	45.529	78.260	1.00	68.55
10	ATOM	5051	O	HOH W 139	44.023	49.889	77.980	1.00	30.04
	ATOM	5052	O	HOH W 140	26.786	62.061	81.604	1.00	16.85
	ATOM	5053	O	HOH W 141	13.879	47.676	76.209	1.00	46.91
	ATOM	5054	O	HOH W 142	25.840	58.036	65.771	1.00	54.37
	ATOM	5055	O	HOH W 143	10.922	53.966	85.792	1.00	18.98
15	ATOM	5056	O	HOH W 144	-12.182	45.374	45.449	1.00	33.96
	ATOM	5057	O	HOH W 145	31.206	39.579	79.369	1.00	15.60
	ATOM	5058	O	HOH W 146	15.440	42.222	77.590	1.00	25.43
	ATOM	5059	O	HOH W 147	0.824	56.052	62.386	1.00	26.41
	ATOM	5060	O	HOH W 148	44.978	53.578	86.262	1.00	22.60
20	ATOM	5061	O	HOH W 149	17.898	31.967	86.834	1.00	19.51
	ATOM	5062	O	HOH W 150	15.892	63.944	61.374	1.00	54.27
	ATOM	5063	O	HOH W 151	29.311	44.330	75.316	1.00	39.02
	ATOM	5064	O	HOH W 152	11.678	62.566	52.561	1.00	27.61
	ATOM	5065	O	HOH W 153	26.748	53.479	95.785	1.00	45.53
25	ATOM	5066	O	HOH W 154	35.164	39.157	88.454	1.00	33.28
	ATOM	5067	O	HOH W 155	13.599	30.411	61.539	1.00	16.55
	ATOM	5068	O	HOH W 156	2.955	41.496	60.167	1.00	26.41
	ATOM	5069	O	HOH W 157	21.013	47.058	81.902	1.00	24.07
	ATOM	5070	O	HOH W 158	7.082	15.804	68.963	1.00	13.64
30	ATOM	5071	O	HOH W 159	43.659	51.565	97.228	1.00	13.91
	ATOM	5072	O	HOH W 160	25.728	46.521	67.857	1.00	15.18
	ATOM	5073	O	HOH W 161	16.336	27.429	80.519	1.00	13.58
	ATOM	5074	O	HOH W 162	13.506	27.963	78.488	1.00	11.63
	ATOM	5075	O	HOH W 163	-1.826	28.836	60.633	1.00	18.21
35	ATOM	5076	O	HOH W 164	2.041	28.523	68.718	1.00	19.80
	ATOM	5077	O	HOH W 165	39.832	50.082	92.567	1.00	15.76
	ATOM	5078	O	HOH W 166	20.417	35.797	44.686	1.00	23.98
	ATOM	5079	O	HOH W 167	36.272	60.259	74.993	1.00	26.08
	ATOM	5080	O	HOH W 168	5.426	61.205	63.338	1.00	23.06
40	ATOM	5081	O	HOH W 169	17.667	67.608	77.116	1.00	28.66
	ATOM	5082	O	HOH W 170	5.631	18.160	69.508	1.00	19.48
	ATOM	5083	O	HOH W 171	22.328	62.979	93.415	1.00	25.81
	ATOM	5084	O	HOH W 172	40.390	48.175	94.855	1.00	47.37
	ATOM	5085	O	HOH W 173	17.444	40.095	51.789	1.00	18.19
45	ATOM	5086	O	HOH W 174	29.587	24.011	76.681	1.00	24.09
	ATOM	5087	O	HOH W 175	6.778	26.010	80.637	1.00	26.64
	ATOM	5088	O	HOH W 176	43.821	42.250	81.895	1.00	24.88
	ATOM	5089	O	HOH W 177	28.198	18.300	60.474	1.00	24.14
	ATOM	5090	O	HOH W 178	22.788	46.771	90.209	1.00	24.26
50	ATOM	5091	O	HOH W 179	29.931	24.564	79.534	1.00	31.74
	ATOM	5092	O	HOH W 180	10.739	18.587	70.209	1.00	34.82
	ATOM	5093	O	HOH W 181	3.737	42.980	66.727	1.00	18.45
	ATOM	5094	O	HOH W 182	10.657	69.135	86.850	1.00	30.21
	ATOM	5095	O	HOH W 183	23.612	39.959	68.861	1.00	20.99
55	ATOM	5096	O	HOH W 184	30.240	50.378	93.511	1.00	31.76
	ATOM	5097	O	HOH W 185	24.407	42.363	69.680	1.00	23.63
	ATOM	5098	O	HOH W 186	3.121	26.698	57.992	1.00	26.26
	ATOM	5099	O	HOH W 187	6.662	51.993	60.872	1.00	21.24
	ATOM	5100	O	HOH W 188	10.549	31.727	52.631	1.00	21.12
60	ATOM	5101	O	HOH W 189	7.213	14.560	66.229	1.00	19.68
	ATOM	5102	O	HOH W 190	10.944	37.995	74.849	1.00	26.21
	ATOM	5103	O	HOH W 191	29.009	38.268	80.361	1.00	21.40
	ATOM	5104	O	HOH W 192	8.720	37.803	87.790	1.00	25.70
	ATOM	5105	O	HOH W 193	30.731	47.721	57.132	1.00	25.12
	ATOM	5106	O	HOH W 194	21.085	45.693	69.052	1.00	27.11

	ATOM	5107	O	HOH	W	195	37.609	50.318	68.349	1.00	33.12
	ATOM	5108	O	HOH	W	196	-4.270	35.004	72.084	1.00	23.92
	ATOM	5109	O	HOH	W	197	38.619	67.647	73.848	1.00	28.81
	ATOM	5110	O	HOH	W	198	0.963	27.263	54.964	1.00	25.61
5	ATOM	5111	O	HOH	W	199	32.881	53.350	97.969	1.00	72.92
	ATOM	5112	O	HOH	W	200	16.605	54.411	65.120	1.00	21.12
	ATOM	5113	O	HOH	W	201	19.780	53.463	90.814	1.00	25.04
	ATOM	5114	O	HOH	W	202	-7.941	56.718	56.011	1.00	40.98
	ATOM	5115	O	HOH	W	203	8.373	35.496	71.320	1.00	34.46
10	ATOM	5116	O	HOH	W	204	30.102	60.104	96.117	1.00	23.15
	ATOM	5117	O	HOH	W	205	28.927	39.455	66.453	1.00	21.12
	ATOM	5118	O	HOH	W	206	39.689	41.335	88.297	1.00	27.24
	ATOM	5119	O	HOH	W	207	33.916	37.626	52.438	1.00	33.19
	ATOM	5120	O	HOH	W	208	1.622	50.963	82.588	1.00	50.35
15	ATOM	5121	O	HOH	W	209	16.333	60.146	56.900	1.00	29.60
	ATOM	5122	O	HOH	W	210	39.242	45.128	91.725	1.00	22.90
	ATOM	5123	O	HOH	W	211	14.399	30.418	45.430	1.00	34.78
	ATOM	5124	O	HOH	W	212	29.888	42.111	88.891	1.00	34.76
	ATOM	5125	O	HOH	W	213	18.346	26.212	50.297	1.00	44.21
20	ATOM	5126	O	HOH	W	214	22.864	63.026	74.711	1.00	29.30
	ATOM	5127	O	HOH	W	215	20.113	37.220	85.926	1.00	24.06
	ATOM	5128	O	HOH	W	216	23.298	70.540	87.208	1.00	35.89
	ATOM	5129	O	HOH	W	217	26.970	41.872	69.933	1.00	28.60
	ATOM	5130	O	HOH	W	218	-4.296	44.927	43.216	1.00	33.90
25	ATOM	5131	O	HOH	W	219	12.321	60.082	62.828	1.00	28.33
	ATOM	5132	O	HOH	W	220	13.873	37.878	45.419	1.00	43.55
	ATOM	5133	O	HOH	W	221	30.748	40.180	83.791	1.00	37.04
	ATOM	5134	O	HOH	W	222	15.784	58.732	93.087	1.00	23.80
	ATOM	5135	O	HOH	W	223	35.311	18.767	63.462	1.00	49.24
30	ATOM	5136	O	HOH	W	224	-0.325	33.536	77.400	1.00	28.59
	ATOM	5137	O	HOH	W	225	9.312	60.280	65.861	1.00	37.85
	ATOM	5138	O	HOH	W	226	20.424	20.146	83.661	1.00	32.68
	ATOM	5139	O	HOH	W	227	10.879	65.256	88.761	1.00	28.17
	ATOM	5140	O	HOH	W	228	6.481	11.890	66.154	1.00	13.58
35	ATOM	5141	O	HOH	W	229	11.493	12.304	65.667	1.00	31.38
	ATOM	5142	O	HOH	W	230	23.893	48.760	67.764	1.00	19.58
	ATOM	5143	O	HOH	W	231	11.826	33.465	74.498	1.00	16.87
	ATOM	5144	O	HOH	W	232	20.228	48.799	84.083	1.00	14.10
	ATOM	5145	O	HOH	W	233	8.333	25.989	83.238	1.00	20.03
40	ATOM	5146	O	HOH	W	234	24.244	65.422	90.512	1.00	18.61
	ATOM	5147	O	HOH	W	235	29.682	43.395	86.674	1.00	29.99
	ATOM	5148	O	HOH	W	236	32.122	38.935	81.421	1.00	21.98
	ATOM	5149	O	HOH	W	237	38.098	44.260	70.626	1.00	23.18
	ATOM	5150	O	HOH	W	238	17.172	68.773	81.829	1.00	33.19
45	ATOM	5151	O	HOH	W	239	22.056	41.676	85.707	1.00	27.98
	ATOM	5152	O	HOH	W	240	10.609	35.835	76.035	1.00	26.77
	ATOM	5153	O	HOH	W	241	5.895	48.362	80.563	1.00	35.27
	ATOM	5154	O	HOH	W	242	4.210	38.365	90.354	1.00	62.63
	ATOM	5155	O	HOH	W	243	27.505	26.048	57.570	1.00	34.59
50	ATOM	5156	O	HOH	W	244	40.199	29.895	75.610	1.00	30.81
	ATOM	5157	O	HOH	W	245	41.069	35.070	67.073	1.00	25.75
	ATOM	5158	O	HOH	W	246	18.209	43.386	70.174	1.00	24.27
	ATOM	5159	O	HOH	W	247	22.994	40.780	73.297	1.00	35.20
	ATOM	5160	O	HOH	W	248	11.980	17.646	61.687	1.00	24.63
55	ATOM	5161	O	HOH	W	249	17.092	44.230	71.974	1.00	27.55
	ATOM	5162	O	HOH	W	250	29.907	45.909	50.610	1.00	33.85
	ATOM	5163	O	HOH	W	251	25.337	41.587	74.020	1.00	31.92
	ATOM	5164	O	HOH	W	252	34.320	29.393	64.417	1.00	34.88
	ATOM	5165	O	HOH	W	253	16.366	57.688	55.311	1.00	30.35
60	ATOM	5166	O	HOH	W	254	25.295	70.347	83.432	1.00	44.62
	ATOM	5167	O	HOH	W	255	28.780	44.083	69.312	1.00	38.06
	ATOM	5168	O	HOH	W	256	43.987	44.841	81.855	1.00	26.92
	ATOM	5169	O	HOH	W	257	10.694	22.780	82.399	1.00	40.18
	ATOM	5170	O	HOH	W	258	3.209	26.059	69.842	1.00	50.02



	ATOM	5171	O	HOH	W	259	25.123	69.880	90.995	1.00	32.08
	ATOM	5172	O	HOH	W	260	10.460	60.937	72.334	1.00	28.48
	ATOM	5173	O	HOH	W	261	35.272	43.014	54.933	1.00	35.32
5	ATOM	5174	O	HOH	W	262	31.555	49.428	69.261	1.00	30.03
	ATOM	5175	O	HOH	W	263	18.455	45.339	74.865	1.00	22.60
	ATOM	5176	O	HOH	W	264	0.397	52.925	76.187	1.00	26.73
	ATOM	5177	O	HOH	W	265	24.642	68.564	81.573	1.00	27.40
	ATOM	5178	O	HOH	W	266	25.734	20.393	55.492	1.00	32.87
10	ATOM	5179	O	HOH	W	267	11.923	58.720	70.763	1.00	21.77
	ATOM	5180	O	HOH	W	268	30.308	43.013	67.201	1.00	35.32
	ATOM	5181	O	HOH	W	269	39.640	38.126	67.437	1.00	28.94
	ATOM	5182	O	HOH	W	270	10.397	50.110	41.557	1.00	28.07
	ATOM	5183	O	HOH	W	271	33.290	46.466	61.539	1.00	27.30
15	ATOM	5184	O	HOH	W	272	0.016	42.090	76.502	1.00	32.33
	ATOM	5185	O	HOH	W	273	26.563	45.481	40.291	1.00	47.85
	ATOM	5186	O	HOH	W	274	30.451	15.205	70.110	1.00	33.04
	ATOM	5187	O	HOH	W	275	0.678	54.618	69.973	1.00	30.37
	ATOM	5188	O	HOH	W	276	31.009	22.826	58.292	1.00	38.03
20	ATOM	5189	O	HOH	W	277	11.598	18.077	78.103	1.00	32.86
	ATOM	5190	O	HOH	W	278	42.789	49.257	82.276	1.00	38.27
	ATOM	5191	O	HOH	W	279	22.610	37.483	44.945	1.00	36.88
	ATOM	5192	O	HOH	W	280	19.095	19.104	54.480	1.00	29.52
	ATOM	5193	O	HOH	W	281	-17.217	39.695	36.067	1.00	33.38
25	ATOM	5194	O	HOH	W	282	6.068	42.637	67.543	1.00	33.87
	ATOM	5195	O	HOH	W	283	20.639	46.522	87.847	1.00	36.70
	ATOM	5196	O	HOH	W	284	-8.870	56.242	58.240	1.00	50.62
	ATOM	5197	O	HOH	W	285	16.582	61.670	59.151	1.00	38.20
	ATOM	5198	O	HOH	W	286	42.501	43.301	75.886	1.00	27.81
30	ATOM	5199	O	HOH	W	287	25.604	33.439	84.786	1.00	21.08
	ATOM	5200	O	HOH	W	288	13.520	67.352	52.561	1.00	39.75
	ATOM	5201	O	HOH	W	289	9.627	28.198	45.908	1.00	37.35
	ATOM	5202	O	HOH	W	290	18.134	36.512	88.493	1.00	43.01
	ATOM	5203	O	HOH	W	291	22.300	20.482	81.874	1.00	37.81
35	ATOM	5204	O	HOH	W	292	44.203	41.289	79.602	1.00	27.00
	ATOM	5205	O	HOH	W	293	44.462	52.335	93.395	1.00	32.88
	ATOM	5206	O	HOH	W	294	-2.968	37.813	43.815	1.00	39.42
	ATOM	5207	O	HOH	W	295	14.615	50.638	83.483	1.00	40.84
	ATOM	5208	O	HOH	W	296	17.655	48.236	85.049	1.00	38.41
40	ATOM	5209	O	HOH	W	297	25.105	58.534	70.338	1.00	45.37
	ATOM	5210	O	HOH	W	298	6.153	22.174	58.465	1.00	51.17
	ATOM	5211	O	HOH	W	299	14.099	45.045	75.129	1.00	38.12
	ATOM	5212	O	HOH	W	300	3.614	33.798	78.265	1.00	33.77
	ATOM	5213	O	HOH	W	301	10.974	62.101	70.086	1.00	31.30
45	ATOM	5214	O	HOH	W	302	7.585	38.532	71.479	1.00	35.66
	ATOM	5215	O	HOH	W	303	20.998	44.178	74.359	1.00	37.38
	ATOM	5216	O	HOH	W	304	11.918	38.385	43.252	1.00	35.61
	ATOM	5217	O	HOH	W	305	34.337	29.948	80.309	1.00	36.78
	ATOM	5218	O	HOH	W	306	39.120	63.630	75.316	1.00	43.48
50	ATOM	5219	O	HOH	W	307	36.491	64.702	80.717	1.00	19.64
	ATOM	5220	O	HOH	W	308	-11.598	58.968	55.040	1.00	54.59
	ATOM	5221	O	HOH	W	309	18.873	53.508	93.447	1.00	29.42
	ATOM	5222	O	HOH	W	310	7.673	37.412	69.273	1.00	30.92
	ATOM	5223	O	HOH	W	311	38.494	29.355	71.433	1.00	35.92
55	ATOM	5224	O	HOH	W	312	2.378	64.614	72.106	1.00	23.68
	ATOM	5225	O	HOH	W	313	34.055	22.747	70.419	1.00	47.42
	ATOM	5226	O	HOH	W	314	6.517	15.338	63.891	1.00	39.21
	ATOM	5227	O	HOH	W	315	33.135	58.667	95.357	1.00	38.27
	ATOM	5228	O	HOH	W	316	7.877	41.088	68.810	1.00	30.88
60	ATOM	5229	O	HOH	W	317	4.500	63.686	62.465	1.00	40.54
	ATOM	5230	O	HOH	W	318	32.594	44.212	51.619	1.00	28.18
	ATOM	5231	O	HOH	W	319	19.892	28.363	50.295	1.00	37.48
	ATOM	5232	O	HOH	W	320	38.121	42.209	58.482	1.00	35.42
	ATOM	5233	O	HOH	W	321	18.953	60.209	59.879	1.00	32.37
	ATOM	5234	O	HOH	W	322	-1.038	45.854	73.695	1.00	33.19

5	ATOM	5235	O	HOH	W	323	-6.723	31.695	78.229	1.00	48.52
	ATOM	5236	O	HOH	W	324	20.123	41.413	71.190	1.00	40.23
	ATOM	5237	O	HOH	W	325	5.380	25.588	55.751	1.00	26.30
	ATOM	5238	O	HOH	W	326	-8.946	53.154	58.636	1.00	33.33
	ATOM	5239	O	HOH	W	327	5.224	20.615	65.617	1.00	38.04
10	ATOM	5240	O	HOH	W	328	-0.951	44.688	66.660	1.00	48.71
	ATOM	5241	O	HOH	W	329	9.548	17.972	61.116	1.00	38.57
	ATOM	5242	O	HOH	W	330	16.170	45.478	46.564	1.00	33.55
	ATOM	5243	O	HOH	W	331	28.152	31.228	86.919	1.00	66.11
	ATOM	5244	O	HOH	W	332	-4.227	32.608	61.396	1.00	29.03
15	ATOM	5245	O	HOH	W	333	23.532	69.913	79.399	1.00	40.45
	ATOM	5246	O	HOH	W	334	16.943	25.394	84.026	1.00	35.64
	ATOM	5247	O	HOH	W	335	-6.097	33.164	72.143	1.00	47.23
	ATOM	5248	O	HOH	W	336	26.639	58.545	95.902	1.00	30.17
	ATOM	5249	O	HOH	W	337	18.090	14.281	77.183	1.00	34.77
20	ATOM	5250	O	HOH	W	338	16.783	69.158	79.498	1.00	41.04
	ATOM	5251	O	HOH	W	339	44.586	50.422	83.945	1.00	37.92
	ATOM	5252	O	HOH	W	340	11.828	51.361	43.560	1.00	42.10
	ATOM	5253	O	HOH	W	341	22.773	36.745	86.817	1.00	38.07
	ATOM	5254	O	HOH	W	342	26.608	43.969	74.943	1.00	32.64
25	ATOM	5255	O	HOH	W	343	14.797	17.437	79.901	1.00	37.80
	ATOM	5256	O	HOH	W	344	32.755	40.414	86.886	1.00	53.20
	ATOM	5257	O	HOH	W	345	23.938	65.851	93.231	1.00	38.25
	ATOM	5258	O	HOH	W	346	34.689	68.947	70.635	1.00	32.36
	ATOM	5259	O	HOH	W	347	32.902	14.779	66.467	1.00	55.05
30	ATOM	5260	O	HOH	W	348	-0.197	59.892	61.918	1.00	41.09
	ATOM	5261	O	HOH	W	349	35.933	50.743	66.825	1.00	29.14
	ATOM	5262	O	HOH	W	350	21.451	70.196	84.069	1.00	37.63
	ATOM	5263	O	HOH	W	351	10.392	34.055	71.909	1.00	37.36
	ATOM	5264	O	HOH	W	352	16.118	48.288	46.594	1.00	33.56
35	ATOM	5265	O	HOH	W	353	2.277	58.481	67.819	1.00	45.09
	ATOM	5266	O	HOH	W	354	-21.140	42.970	52.987	1.00	38.49
	ATOM	5267	O	HOH	W	355	0.364	56.797	65.209	1.00	34.76
	ATOM	5268	O	HOH	W	356	9.763	37.511	72.464	1.00	36.84
	ATOM	5269	O	HOH	W	357	-3.293	29.651	64.159	1.00	48.44
40	ATOM	5270	O	HOH	W	358	18.653	59.497	55.820	1.00	41.32
	ATOM	5271	O	HOH	W	359	18.360	56.858	89.365	1.00	16.20
	ATOM	5272	O	HOH	W	360	19.264	58.334	58.324	1.00	24.32
	ATOM	5273	O	HOH	W	361	19.786	68.920	85.535	1.00	36.46
	ATOM	5274	O	HOH	W	362	0.891	46.454	70.028	1.00	49.40
45	ATOM	5275	O	HOH	W	363	13.401	15.156	61.247	1.00	32.90
	ATOM	5276	O	HOH	W	364	29.937	41.912	73.484	1.00	34.92
	ATOM	5277	O	HOH	W	365	28.117	39.053	82.612	1.00	29.94
	ATOM	5278	O	HOH	W	366	17.060	44.064	76.687	1.00	31.64
	ATOM	5279	O	HOH	W	367	7.781	32.331	42.244	1.00	54.33
50	ATOM	5280	O	HOH	W	368	13.484	60.143	67.092	1.00	36.32
	ATOM	5281	O	HOH	W	369	4.972	65.695	69.472	1.00	30.93
	ATOM	5282	O	HOH	W	370	20.859	55.364	94.926	1.00	35.05
	ATOM	5283	O	HOH	W	371	29.891	64.316	94.062	1.00	32.43
	ATOM	5284	O	HOH	W	372	31.636	50.857	46.407	1.00	75.60
55	ATOM	5285	O	HOH	W	373	-9.778	35.027	39.632	1.00	56.74
	ATOM	5286	O	HOH	W	374	14.152	12.701	64.957	1.00	23.80
	ATOM	5287	O	HOH	W	375	35.419	45.143	64.442	1.00	36.74
	ATOM	5288	O	HOH	W	376	34.839	57.375	97.888	1.00	34.34
	ATOM	5289	O	HOH	W	377	35.027	44.946	53.379	1.00	45.25
60	ATOM	5290	O	HOH	W	378	10.904	44.942	78.238	1.00	46.33
	ATOM	5291	O	HOH	W	379	2.265	29.749	79.673	1.00	55.34
	ATOM	5292	O	HOH	W	380	38.376	37.663	83.485	1.00	48.83
	ATOM	5293	O	HOH	W	381	7.069	18.511	64.588	1.00	42.75
	ATOM	5294	O	HOH	W	382	10.013	63.184	65.119	1.00	51.27
	ATOM	5295	O	HOH	W	383	26.880	67.265	80.460	1.00	29.17
	ATOM	5296	O	HOH	W	384	5.435	44.858	39.529	1.00	44.09
	ATOM	5297	O	HOH	W	385	12.020	76.116	49.503	1.00	57.08
	ATOM	5298	O	HOH	W	386	4.495	69.223	72.134	1.00	39.47

	ATOM	5299	O	HOH W 387	34.373	34.834	52.407	1.00	45.73
	ATOM	5300	O	HOH W 388	-0.366	52.210	68.045	1.00	56.86
	ATOM	5301	O	HOH W 389	15.108	39.899	89.165	1.00	30.62
5	ATOM	5302	O	HOH W 390	20.977	60.725	61.985	1.00	42.08
	ATOM	5303	O	HOH W 391	29.038	14.547	63.725	1.00	33.69
	ATOM	5304	O	HOH W 392	34.064	66.637	81.988	1.00	37.83
	ATOM	5305	O	HOH W 393	8.669	71.915	54.348	1.00	40.01
	ATOM	5306	O	HOH W 394	4.823	29.577	79.259	1.00	42.09
10	ATOM	5307	O	HOH W 395	22.745	32.929	42.078	1.00	50.18
	ATOM	5308	O	HOH W 396	0.658	29.749	51.236	1.00	30.86
	ATOM	5309	O	HOH W 397	3.793	58.214	86.346	1.00	62.42
	ATOM	5310	O	HOH W 398	12.206	40.564	89.850	1.00	39.66
	ATOM	5311	O	HOH W 399	21.573	25.561	53.053	1.00	34.62
	ATOM	5312	O	HOH W 400	30.197	56.551	58.739	1.00	40.16
15	ATOM	5313	O	HOH W 401	20.406	59.350	64.941	1.00	33.97
	ATOM	5314	O	HOH W 402	16.956	52.960	87.724	1.00	54.35
	ATOM	5315	O	HOH W 403	36.719	27.459	68.822	1.00	42.51
	ATOM	5316	O	HOH W 404	7.458	27.206	77.481	1.00	46.67
20	ATOM	5317	O	HOH W 405	36.220	64.298	90.593	1.00	51.29
	ATOM	5318	O	HOH W 406	-17.985	43.406	48.900	1.00	41.71
	ATOM	5319	O	HOH W 407	1.914	29.246	53.120	1.00	38.28
	ATOM	5320	O	HOH W 408	-4.267	29.328	73.970	1.00	34.50
	ATOM	5321	O	HOH W 409	14.000	53.360	42.218	1.00	42.56
25	ATOM	5322	O	HOH W 410	5.615	22.345	61.668	1.00	59.03
	ATOM	5323	O	HOH W 411	-3.455	50.442	63.951	1.00	44.90
	ATOM	5324	O	HOH W 412	29.002	38.811	44.563	1.00	43.27
	ATOM	5325	O	HOH W 413	37.416	55.208	61.603	1.00	42.90
	ATOM	5326	O	HOH W 414	14.459	14.960	73.514	1.00	42.33
30	ATOM	5327	O	HOH W 415	35.076	48.768	98.233	1.00	41.69
	ATOM	5328	O	HOH W 416	6.452	56.342	86.263	1.00	34.79
	ATOM	5329	O	HOH W 417	35.573	17.694	66.735	1.00	40.65
	ATOM	5330	O	HOH W 418	28.756	59.314	74.937	1.00	35.85
	ATOM	5331	O	HOH W 419	12.955	64.913	53.664	1.00	37.44
35	ATOM	5332	O	HOH W 420	23.309	24.474	50.751	1.00	45.73
	ATOM	5333	O	HOH W 421	4.924	27.771	55.010	1.00	38.46
	ATOM	5334	O	HOH W 422	19.668	63.675	93.111	1.00	41.69
	ATOM	5335	O	HOH W 423	29.343	46.551	40.650	1.00	45.12
	ATOM	5336	O	HOH W 424	28.230	48.770	60.385	1.00	40.19
40	ATOM	5337	O	HOH W 425	14.292	23.244	85.078	1.00	32.92
	ATOM	5338	O	HOH W 426	7.179	66.298	48.617	1.00	47.43
	ATOM	5339	O	HOH W 427	-11.542	35.315	64.224	1.00	45.74
	ATOM	5340	O	HOH W 428	-0.665	52.874	80.688	1.00	44.47
	ATOM	5341	O	HOH W 429	-1.483	67.437	44.508	1.00	88.79
45	ATOM	5342	O	HOH W 430	13.367	66.767	63.127	1.00	62.36
	ATOM	5343	O	HOH W 431	35.060	48.549	63.034	1.00	39.85
	ATOM	5344	O	HOH W 432	11.721	60.705	42.372	1.00	56.11
	ATOM	5345	O	HOH W 433	14.261	27.588	85.980	1.00	51.35
	ATOM	5346	O	HOH W 434	38.915	34.680	61.103	1.00	45.58
50	ATOM	5347	O	HOH W 435	23.421	46.416	42.605	1.00	43.02
	ATOM	5348	O	HOH W 436	19.154	28.435	86.238	1.00	47.30
	ATOM	5349	O	HOH W 437	26.658	43.571	47.275	1.00	34.55
	ATOM	5350	O	HOH W 438	15.725	45.758	43.317	1.00	43.06
	ATOM	5351	O	HOH W 439	36.546	66.825	82.882	1.00	30.83
55	ATOM	5352	O	HOH W 440	8.498	74.001	52.039	1.00	46.91
	ATOM	5353	O	HOH W 441	27.161	71.692	92.146	1.00	39.00
	ATOM	5354	O	HOH W 442	27.946	33.322	85.163	1.00	33.09
	ATOM	5355	O	HOH W 443	15.310	10.169	65.089	1.00	63.51
	ATOM	5356	O	HOH W 444	-13.474	41.923	71.321	1.00	44.29
60	ATOM	5357	O	HOH W 445	-6.593	61.419	56.587	1.00	36.57
	ATOM	5358	O	HOH W 446	-4.107	19.122	50.753	1.00	80.39
	ATOM	5359	O	HOH W 447	21.809	59.754	43.571	1.00	64.03
	ATOM	5360	O	HOH W 448	32.503	55.926	51.478	1.00	51.13
	ATOM	5361	O	HOH W 449	17.433	44.251	80.196	1.00	52.95
	ATOM	5362	O	HOH W 450	-2.882	28.319	76.738	1.00	57.32

5	ATOM	5363	O	HOH	W	451	8.921	18.143	71.756	1.00	45.59
	ATOM	5364	O	HOH	W	452	46.415	37.408	72.673	1.00	74.61
	ATOM	5365	O	HOH	W	453	46.612	53.365	82.940	1.00	41.92
	ATOM	5366	O	HOH	W	454	39.885	53.691	74.043	1.00	45.59
	ATOM	5367	O	HOH	W	455	28.187	69.890	80.215	1.00	33.51
10	ATOM	5368	O	HOH	W	456	10.557	47.292	72.599	1.00	14.04
	ATOM	5369	O	HOH	W	457	-0.687	61.537	70.644	1.00	40.63
	ATOM	5370	O	HOH	W	458	33.335	31.445	62.420	1.00	32.53
	ATOM	5371	O	HOH	W	459	26.658	39.474	43.256	1.00	32.50
	ATOM	5372	O	HOH	W	460	30.185	25.893	82.542	1.00	45.40
15	ATOM	5373	O	HOH	W	461	20.780	39.620	40.793	1.00	60.63
	ATOM	5374	O	HOH	W	462	-13.804	40.073	67.421	1.00	42.25
	ATOM	5375	O	HOH	W	463	1.328	41.371	78.681	1.00	56.39
	ATOM	5376	O	HOH	W	464	33.554	26.796	70.488	1.00	37.48
	ATOM	5377	O	HOH	W	465	34.317	54.835	70.139	1.00	57.37
20	ATOM	5378	O	HOH	W	466	1.781	11.779	66.821	1.00	47.25
	ATOM	5379	O	HOH	W	467	13.278	63.141	46.031	1.00	57.79
	ATOM	5380	O	HOH	W	468	37.787	55.035	100.999	1.00	53.08
	ATOM	5381	O	HOH	W	469	13.794	19.603	83.707	1.00	47.87
	ATOM	5382	O	HOH	W	470	25.470	45.716	93.468	1.00	36.66
25	ATOM	5383	O	HOH	W	471	10.578	17.685	75.291	1.00	37.43
	ATOM	5384	O	HOH	W	472	52.811	39.642	69.739	1.00	44.12
	ATOM	5385	O	HOH	W	473	23.329	56.116	94.868	1.00	47.73
	ATOM	5386	O	HOH	W	474	35.936	48.711	65.428	1.00	58.05
	ATOM	5387	O	HOH	W	475	28.119	66.507	82.635	1.00	41.75
30	ATOM	5388	O	HOH	W	476	-0.565	54.408	74.299	1.00	50.86
	ATOM	5389	O	HOH	W	477	4.072	70.416	58.486	1.00	35.45
	ATOM	5390	O	HOH	W	478	-3.762	26.579	63.779	1.00	53.91
	ATOM	5391	O	HOH	W	479	19.595	35.426	41.883	1.00	51.58
	ATOM	5392	O	HOH	W	480	24.800	7.578	70.043	1.00	41.13
35	ATOM	5393	O	HOH	W	481	17.947	10.147	65.643	1.00	58.35
	ATOM	5394	O	HOH	W	482	31.312	44.348	64.437	1.00	48.49
	ATOM	5395	O	HOH	W	483	46.224	50.030	81.043	1.00	53.87
	ATOM	5396	O	HOH	W	484	35.129	52.464	51.431	1.00	54.76
	ATOM	5397	O	HOH	W	485	5.885	65.189	84.813	1.00	83.91
40	ATOM	5398	O	HOH	W	486	20.281	16.200	55.863	1.00	46.25
	ATOM	5399	O	HOH	W	487	-5.180	21.053	56.028	1.00	37.00
	ATOM	5400	O	HOH	W	488	-11.188	38.067	41.229	1.00	69.22
	ATOM	5401	O	HOH	W	489	15.256	67.180	75.313	1.00	51.22
	ATOM	5402	O	HOH	W	490	3.374	63.019	56.672	1.00	42.46
45	ATOM	5403	O	HOH	W	491	30.082	15.975	73.952	1.00	49.06
	ATOM	5404	O	HOH	W	492	-7.562	32.348	64.350	1.00	53.88
	ATOM	5405	O	HOH	W	493	14.504	69.382	77.201	1.00	79.52
	ATOM	5406	O	HOH	W	494	37.374	41.179	54.837	1.00	41.94
	ATOM	5407	O	HOH	W	495	22.651	62.725	71.998	1.00	46.62
50	ATOM	5408	O	HOH	W	496	13.052	47.941	46.569	1.00	50.14
	ATOM	5409	O	HOH	W	497	-1.906	45.997	36.480	1.00	62.33
	ATOM	5410	O	HOH	W	498	35.740	52.464	53.693	1.00	55.17
	ATOM	5411	O	HOH	W	499	30.727	32.353	49.843	1.00	56.92
	ATOM	5412	O	HOH	W	500	0.025	32.686	42.604	1.00	48.23
55	ATOM	5413	O	HOH	W	501	47.830	56.735	86.611	1.00	47.42
	ATOM	5414	O	HOH	W	502	18.095	60.627	94.715	1.00	65.28
	ATOM	5415	O	HOH	W	503	2.306	31.026	81.802	1.00	37.32
	ATOM	5416	O	HOH	W	504	-8.696	27.990	79.237	1.00	46.99
	ATOM	5417	O	HOH	W	505	22.034	70.217	89.142	1.00	47.15
60	ATOM	5418	O	HOH	W	506	22.136	73.412	87.005	1.00	38.47
	ATOM	5419	O	HOH	W	507	-0.926	26.674	74.129	1.00	58.76
	ATOM	5420	O	HOH	W	508	-6.108	48.377	71.102	1.00	64.56
	ATOM	5421	O	HOH	W	509	39.520	39.424	56.576	1.00	72.80
	ATOM	5422	O	HOH	W	510	-4.081	58.518	47.377	1.00	60.65
	ATOM	5423	O	HOH	W	511	34.434	23.876	75.179	1.00	48.53
	ATOM	5424	O	HOH	W	512	17.400	63.380	50.267	1.00	40.76
	ATOM	5425	O	HOH	W	513	9.647	61.533	68.296	1.00	46.31
	ATOM	5426	O	HOH	W	514	41.430	58.961	99.800	1.00	49.23

	ATOM	5427	O	HOH	W	515	23.725	20.340	53.830	1.00	51.65
	ATOM	5428	O	HOH	W	516	15.576	16.190	78.131	1.00	61.27
	ATOM	5429	O	HOH	W	517	29.334	21.375	75.882	1.00	44.80
5	ATOM	5430	O	HOH	W	518	-1.624	50.514	39.683	1.00	49.85
	ATOM	5431	O	HOH	W	519	8.771	69.104	72.705	1.00	47.81
	ATOM	5432	O	HOH	W	520	-21.311	45.001	55.217	1.00	64.01
	ATOM	5433	O	HOH	W	521	-1.392	54.790	67.171	1.00	53.90
	ATOM	5434	O	HOH	W	522	38.464	56.277	74.548	1.00	63.93
10	ATOM	5435	O	HOH	W	523	33.977	32.491	81.832	1.00	50.18
	ATOM	5436	O	HOH	W	524	16.060	54.317	91.714	1.00	61.57
	ATOM	5437	O	HOH	W	525	21.009	33.700	89.176	1.00	65.31
	ATOM	5438	O	HOH	W	526	28.726	36.253	85.146	1.00	34.76
	ATOM	5439	O	HOH	W	527	24.767	40.641	41.912	1.00	44.57
15	ATOM	5440	O	HOH	W	528	40.708	69.261	83.251	1.00	39.08
	ATOM	5441	O	HOH	W	529	28.264	48.404	92.814	1.00	34.64
	ATOM	5442	O	HOH	W	530	19.375	61.177	66.689	1.00	44.16
	ATOM	5443	O	HOH	W	531	6.639	42.598	82.079	1.00	100.00
	ATOM	5444	O	HOH	W	532	40.403	33.306	64.502	1.00	45.36
20	ATOM	5445	O	HOH	W	533	16.172	18.117	52.264	1.00	44.76
	ATOM	5446	O	HOH	W	534	33.899	42.310	48.851	1.00	52.28
	ATOM	5447	O	HOH	W	535	22.675	9.894	76.942	1.00	51.28
	ATOM	5448	O	HOH	W	536	-11.295	52.730	60.674	1.00	76.16
	ATOM	5449	O	HOH	W	537	20.605	66.466	58.378	1.00	61.62
25	ATOM	5450	O	HOH	W	538	35.282	26.341	50.576	1.00	58.72
	ATOM	5451	O	HOH	W	539	-0.234	39.225	40.255	1.00	54.13
	ATOM	5452	O	HOH	W	540	36.597	43.931	57.481	1.00	43.52
	ATOM	5453	O	HOH	W	541	20.374	41.951	74.120	1.00	47.12
	ATOM	5454	O	HOH	W	542	31.857	31.721	82.689	1.00	46.66
30	ATOM	5455	O	HOH	W	543	34.733	63.213	92.164	1.00	55.58
	ATOM	5456	O	HOH	W	544	-20.506	26.471	44.860	1.00	73.89
	ATOM	5457	O	HOH	W	545	37.699	32.453	62.558	1.00	46.00
	ATOM	5458	O	HOH	W	546	8.296	38.910	67.642	1.00	39.42
	ATOM	5459	O	HOH	W	547	0.194	69.671	72.188	1.00	47.07
35	ATOM	5460	O	HOH	W	548	32.212	52.268	51.134	1.00	52.82
	ATOM	5461	O	HOH	W	549	33.917	21.004	64.439	1.00	26.12
	ATOM	5462	O	HOH	W	550	42.573	58.916	95.252	1.00	20.78
	ATOM	5463	O	HOH	W	551	34.529	66.786	72.611	1.00	36.24

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Table 10: Structure coordinates of LTA<sub>4</sub> hydrolase-thiolamine complex

5	CRYST	68.560	132.150	83.270	90.00	90.00	90.00	P21212
	SCALE1	0.01459	0.00000	0.00000			0.00000	
	SCALE2	0.00000	0.00757	0.00000			0.00000	
	SCALE3	0.00000	0.00000	0.01201			0.00000	
		Atom res. Chain No.			x	y	z	occ B-factor
10	ATOM	1	N	PRO A	1	-0.593	16.387	63.494 1.00 97.99
	ATOM	2	CA	PRO A	1	-1.890	16.918	63.874 1.00 97.22
	ATOM	3	C	PRO A	1	-2.210	18.371	63.525 1.00100.00
	ATOM	4	O	PRO A	1	-2.402	18.667	62.342 1.00100.00
15	ATOM	5	CB	PRO A	1	-2.130	16.551	65.332 1.00 97.81
	ATOM	6	CG	PRO A	1	-1.221	15.355	65.583 1.00100.00
	ATOM	7	CD	PRO A	1	-0.290	15.233	64.369 1.00 97.05
	ATOM	8	N	GLU A	2	-2.216	19.272	64.556 1.00 96.95
20	ATOM	9	CA	GLU A	2	-2.569	20.678	64.314 1.00 95.71
	ATOM	10	C	GLU A	2	-2.188	21.701	65.386 1.00 94.33
	ATOM	11	O	GLU A	2	-2.512	21.542	66.562 1.00 93.21
	ATOM	12	CB	GLU A	2	-4.105	20.768	64.214 1.00 97.26
25	ATOM	13	CG	GLU A	2	-4.587	21.732	63.125 1.00100.00
	ATOM	14	CD	GLU A	2	-4.351	21.139	61.767 1.00100.00
	ATOM	15	OE1	GLU A	2	-3.301	21.261	61.152 1.00100.00
	ATOM	16	OE2	GLU A	2	-5.361	20.398	61.368 1.00100.00
30	ATOM	17	N	ILE A	3	-1.550	22.799	64.944 1.00 86.29
	ATOM	18	CA	ILE A	3	-1.148	23.905	65.820 1.00 81.53
	ATOM	19	C	ILE A	3	-2.006	25.154	65.661 1.00 75.68
	ATOM	20	O	ILE A	3	-2.835	25.288	64.763 1.00 76.97
35	ATOM	21	CB	ILE A	3	0.308	24.324	65.707 1.00 83.45
	ATOM	22	CG1	ILE A	3	0.452	25.521	64.759 1.00 83.63
	ATOM	23	CG2	ILE A	3	1.198	23.160	65.300 1.00 84.76
	ATOM	24	CD1	ILE A	3	-0.184	25.361	63.375 1.00 91.36
40	ATOM	25	N	VAL A	4	-1.725	26.099	66.523 1.00 61.54
	ATOM	26	CA	VAL A	4	-2.477	27.303	66.482 1.00 56.32
	ATOM	27	C	VAL A	4	-1.658	28.552	66.623 1.00 50.98
	ATOM	28	O	VAL A	4	-0.803	28.694	67.512 1.00 47.84
45	ATOM	29	CB	VAL A	4	-3.514	27.318	67.595 1.00 58.99
	ATOM	30	CG1	VAL A	4	-3.735	28.754	68.047 1.00 58.40
	ATOM	31	CG2	VAL A	4	-4.819	26.691	67.131 1.00 58.56
	ATOM	32	N	ASP A	5	-2.012	29.486	65.732 1.00 39.38
50	ATOM	33	CA	ASP A	5	-1.403	30.782	65.763 1.00 32.64
	ATOM	34	C	ASP A	5	-2.308	31.596	66.634 1.00 36.35
	ATOM	35	O	ASP A	5	-3.343	32.051	66.171 1.00 38.30
	ATOM	36	CB	ASP A	5	-1.252	31.492	64.400 1.00 30.79
55	ATOM	37	CG	ASP A	5	-0.251	32.581	64.563 1.00 29.96
	ATOM	38	OD1	ASP A	5	-0.069	33.123	65.635 1.00 35.01
	ATOM	39	OD2	ASP A	5	0.457	32.831	63.493 1.00 29.81
	ATOM	40	N	THR A	6	-1.931	31.745	67.903 1.00 32.32
60	ATOM	41	CA	THR A	6	-2.710	32.507	68.842 1.00 32.08
	ATOM	42	C	THR A	6	-2.701	34.011	68.557 1.00 40.63
	ATOM	43	O	THR A	6	-3.484	34.759	69.132 1.00 46.68
	ATOM	44	CB	THR A	6	-2.357	32.171	70.295 1.00 44.71
65	ATOM	45	OG1	THR A	6	-0.967	32.322	70.505 1.00 51.05
	ATOM	46	CG2	THR A	6	-2.789	30.741	70.604 1.00 35.79
	ATOM	47	N	CYS A	7	-1.842	34.480	67.656 1.00 32.51
	ATOM	48	CA	CYS A	7	-1.797	35.923	67.335 1.00 28.92
70	ATOM	49	C	CYS A	7	-2.627	36.329	66.129 1.00 31.49
	ATOM	50	O	CYS A	7	-2.780	37.523	65.875 1.00 25.42
	ATOM	51	CB	CYS A	7	-0.362	36.410	67.107 1.00 27.38
	ATOM	52	SG	CYS A	7	0.686	35.944	68.518 1.00 32.02
75	ATOM	53	N	SER A	8	-3.140	35.315	65.383 1.00 34.03
	ATOM	54	CA	SER A	8	-3.940	35.508	64.158 1.00 32.97

	ATOM	55	C	SER	A	8	-5.410	35.136	64.264	1.00	33.52
	ATOM	56	O	SER	A	8	-5.744	34.137	64.866	1.00	32.89
	ATOM	57	CB	SER	A	8	-3.363	34.754	62.980	1.00	34.07
	ATOM	58	OG	SER	A	8	-4.017	35.182	61.798	1.00	36.65
5	ATOM	59	N	LEU	A	9	-6.289	35.921	63.635	1.00	30.79
	ATOM	60	CA	LEU	A	9	-7.724	35.649	63.672	1.00	31.91
	ATOM	61	C	LEU	A	9	-8.198	35.009	62.377	1.00	36.07
	ATOM	62	O	LEU	A	9	-9.359	34.626	62.216	1.00	38.61
10	ATOM	63	CB	LEU	A	9	-8.514	36.958	63.874	1.00	32.47
	ATOM	64	CG	LEU	A	9	-8.306	37.688	65.212	1.00	35.39
	ATOM	65	CD1	LEU	A	9	-9.113	38.983	65.193	1.00	32.27
	ATOM	66	CD2	LEU	A	9	-8.746	36.816	66.397	1.00	33.25
	ATOM	67	N	ALA	A	10	-7.273	34.933	61.443	1.00	28.63
	ATOM	68	CA	ALA	A	10	-7.545	34.408	60.147	1.00	27.14
15	ATOM	69	C	ALA	A	10	-7.643	32.921	60.090	1.00	34.34
	ATOM	70	O	ALA	A	10	-7.296	32.173	61.005	1.00	37.34
	ATOM	71	CB	ALA	A	10	-6.551	34.936	59.100	1.00	27.72
	ATOM	72	N	SER	A	11	-8.130	32.503	58.959	1.00	32.08
20	ATOM	73	CA	SER	A	11	-8.256	31.115	58.708	1.00	32.03
	ATOM	74	C	SER	A	11	-6.838	30.519	58.656	1.00	32.67
	ATOM	75	O	SER	A	11	-5.927	31.028	57.986	1.00	29.29
	ATOM	76	CB	SER	A	11	-9.013	30.934	57.401	1.00	38.42
	ATOM	77	OG	SER	A	11	-10.391	30.728	57.648	1.00	44.17
25	ATOM	78	N	PRO	A	12	-6.651	29.440	59.387	1.00	29.14
	ATOM	79	CA	PRO	A	12	-5.370	28.786	59.476	1.00	26.83
	ATOM	80	C	PRO	A	12	-4.935	28.176	58.173	1.00	32.64
	ATOM	81	O	PRO	A	12	-5.737	28.007	57.284	1.00	35.89
	ATOM	82	CB	PRO	A	12	-5.544	27.698	60.540	1.00	28.28
30	ATOM	83	CG	PRO	A	12	-7.029	27.571	60.843	1.00	32.92
	ATOM	84	CD	PRO	A	12	-7.731	28.587	59.952	1.00	30.42
	ATOM	85	N	ALA	A	13	-3.645	27.836	58.063	1.00	30.63
	ATOM	86	CA	ALA	A	13	-3.066	27.236	56.855	1.00	28.36
	ATOM	87	C	ALA	A	13	-3.644	25.852	56.576	1.00	33.99
35	ATOM	88	O	ALA	A	13	-3.455	25.240	55.528	1.00	31.60
	ATOM	89	CB	ALA	A	13	-1.561	27.133	57.050	1.00	27.68
	ATOM	90	N	SER	A	14	-4.338	25.352	57.571	1.00	31.10
	ATOM	91	CA	SER	A	14	-4.919	24.069	57.469	1.00	30.66
	ATOM	92	C	SER	A	14	-6.242	24.133	56.753	1.00	37.86
40	ATOM	93	O	SER	A	14	-6.768	23.118	56.328	1.00	45.79
	ATOM	94	CB	SER	A	14	-5.005	23.386	58.825	1.00	34.33
	ATOM	95	OG	SER	A	14	-6.006	23.978	59.621	1.00	41.01
	ATOM	96	N	VAL	A	15	-6.785	25.327	56.630	1.00	32.80
	ATOM	97	CA	VAL	A	15	-8.036	25.529	55.917	1.00	31.81
45	ATOM	98	C	VAL	A	15	-7.777	26.107	54.507	1.00	34.70
	ATOM	99	O	VAL	A	15	-8.241	25.576	53.494	1.00	31.96
	ATOM	100	CB	VAL	A	15	-9.033	26.336	56.720	1.00	33.07
	ATOM	101	CG1	VAL	A	15	-10.272	26.638	55.861	1.00	33.31
	ATOM	102	CG2	VAL	A	15	-9.412	25.538	57.949	1.00	30.32
50	ATOM	103	N	CYS	A	16	-6.990	27.183	54.453	1.00	33.85
	ATOM	104	CA	CYS	A	16	-6.602	27.826	53.189	1.00	38.27
	ATOM	105	C	CYS	A	16	-5.206	28.388	53.265	1.00	37.14
	ATOM	106	O	CYS	A	16	-4.616	28.534	54.322	1.00	39.70
	ATOM	107	CB	CYS	A	16	-7.589	28.870	52.581	1.00	42.09
55	ATOM	108	SG	CYS	A	16	-7.844	30.418	53.540	1.00	47.38
	ATOM	109	N	ARG	A	17	-4.679	28.722	52.132	1.00	32.10
	ATOM	110	CA	ARG	A	17	-3.349	29.262	52.101	1.00	32.54
	ATOM	111	C	ARG	A	17	-3.210	30.307	51.005	1.00	34.56
	ATOM	112	O	ARG	A	17	-3.511	30.065	49.842	1.00	35.07
60	ATOM	113	CB	ARG	A	17	-2.371	28.152	51.758	1.00	36.83
	ATOM	114	CG	ARG	A	17	-1.779	27.391	52.915	1.00	40.61
	ATOM	115	CD	ARG	A	17	-1.472	25.970	52.503	1.00	27.18
	ATOM	116	NE	ARG	A	17	-1.963	25.026	53.501	1.00	52.41
	ATOM	117	CZ	ARG	A	17	-1.244	24.036	54.035	1.00	69.41
	ATOM	118	NH1	ARG	A	17	0.020	23.812	53.683	1.00	54.86

	ATOM	119	NH2	ARG	A	17	-1.810	23.246	54.952	1.00	49.68
	ATOM	120	N	THR	A	18	-2.711	31.454	51.378	1.00	27.06
	ATOM	121	CA	THR	A	18	-2.489	32.477	50.428	1.00	26.12
5	ATOM	122	C	THR	A	18	-1.250	32.110	49.653	1.00	30.83
	ATOM	123	O	THR	A	18	-0.174	31.964	50.194	1.00	29.06
	ATOM	124	CB	THR	A	18	-2.276	33.810	51.134	1.00	34.27
	ATOM	125	OG1	THR	A	18	-3.481	34.261	51.738	1.00	32.95
	ATOM	126	CG2	THR	A	18	-1.730	34.839	50.156	1.00	35.91
10	ATOM	127	N	LYS	A	19	-1.408	31.955	48.365	1.00	31.55
	ATOM	128	CA	LYS	A	19	-0.298	31.615	47.511	1.00	31.74
	ATOM	129	C	LYS	A	19	0.359	32.848	46.906	1.00	33.90
	ATOM	130	O	LYS	A	19	1.513	32.834	46.520	1.00	34.57
	ATOM	131	CB	LYS	A	19	-0.795	30.697	46.398	1.00	36.08
15	ATOM	132	CG	LYS	A	19	-1.332	29.368	46.924	1.00	62.54
	ATOM	133	CD	LYS	A	19	-0.281	28.257	47.057	1.00	82.23
	ATOM	134	CE	LYS	A	19	0.093	27.880	48.496	1.00	77.50
	ATOM	135	NZ	LYS	A	19	1.553	27.849	48.745	1.00	55.63
	ATOM	136	N	HIS	A	20	-0.387	33.928	46.810	1.00	31.40
20	ATOM	137	CA	HIS	A	20	0.160	35.122	46.198	1.00	29.22
	ATOM	138	C	HIS	A	20	-0.655	36.345	46.517	1.00	34.68
	ATOM	139	O	HIS	A	20	-1.833	36.239	46.846	1.00	35.34
	ATOM	140	CB	HIS	A	20	0.123	34.956	44.666	1.00	26.47
	ATOM	141	CG	HIS	A	20	0.865	36.022	43.970	1.00	26.77
25	ATOM	142	ND1	HIS	A	20	2.249	36.046	43.980	1.00	28.92
	ATOM	143	CD2	HIS	A	20	0.415	37.091	43.280	1.00	27.43
	ATOM	144	CE1	HIS	A	20	2.622	37.126	43.301	1.00	28.21
	ATOM	145	NE2	HIS	A	20	1.536	37.781	42.865	1.00	28.18
	ATOM	146	N	LEU	A	21	0.000	37.492	46.390	1.00	30.14
30	ATOM	147	CA	LEU	A	21	-0.596	38.782	46.610	1.00	31.02
	ATOM	148	C	LEU	A	21	-0.134	39.786	45.562	1.00	38.34
	ATOM	149	O	LEU	A	21	1.073	39.952	45.312	1.00	37.30
	ATOM	150	CB	LEU	A	21	-0.342	39.363	47.999	1.00	31.30
	ATOM	151	CG	LEU	A	21	-0.611	40.880	48.047	1.00	32.33
35	ATOM	152	CD1	LEU	A	21	-2.088	41.192	48.324	1.00	27.10
	ATOM	153	CD2	LEU	A	21	0.277	41.522	49.100	1.00	32.86
	ATOM	154	N	HIS	A	22	-1.127	40.442	44.951	1.00	35.47
	ATOM	155	CA	HIS	A	22	-0.895	41.452	43.920	1.00	34.24
	ATOM	156	C	HIS	A	22	-1.249	42.742	44.550	1.00	33.99
40	ATOM	157	O	HIS	A	22	-2.402	42.957	44.905	1.00	35.72
	ATOM	158	CB	HIS	A	22	-1.720	41.244	42.624	1.00	33.38
	ATOM	159	CG	HIS	A	22	-1.350	42.256	41.615	1.00	35.97
	ATOM	160	ND1	HIS	A	22	-0.030	42.576	41.384	1.00	38.81
	ATOM	161	CD2	HIS	A	22	-2.125	43.043	40.830	1.00	39.07
45	ATOM	162	CE1	HIS	A	22	-0.019	43.534	40.462	1.00	38.66
	ATOM	163	NE2	HIS	A	22	-1.262	43.829	40.103	1.00	39.13
	ATOM	164	N	LEU	A	23	-0.235	43.539	44.757	1.00	30.17
	ATOM	165	CA	LEU	A	23	-0.416	44.793	45.405	1.00	33.32
	ATOM	166	C	LEU	A	23	-0.203	45.949	44.440	1.00	44.46
50	ATOM	167	O	LEU	A	23	0.828	46.068	43.761	1.00	44.06
	ATOM	168	CB	LEU	A	23	0.446	44.882	46.680	1.00	33.72
	ATOM	169	CG	LEU	A	23	-0.141	45.682	47.871	1.00	33.15
	ATOM	170	CD1	LEU	A	23	0.780	46.835	48.172	1.00	26.07
	ATOM	171	CD2	LEU	A	23	-1.539	46.213	47.609	1.00	35.39
55	ATOM	172	N	ARG	A	24	-1.256	46.765	44.395	1.00	42.83
	ATOM	173	CA	ARG	A	24	-1.406	47.964	43.596	1.00	41.79
	ATOM	174	C	ARG	A	24	-1.930	49.005	44.562	1.00	39.15
	ATOM	175	O	ARG	A	24	-3.025	48.859	45.107	1.00	39.85
	ATOM	176	CB	ARG	A	24	-2.458	47.716	42.504	1.00	46.35
60	ATOM	177	CG	ARG	A	24	-2.054	46.750	41.382	1.00	50.50
	ATOM	178	CD	ARG	A	24	-2.754	47.058	40.043	1.00	80.27
	ATOM	179	NE	ARG	A	24	-4.200	46.798	40.062	1.00	95.12
	ATOM	180	CZ	ARG	A	24	-5.152	47.703	39.826	1.00	100.00
	ATOM	181	NH1	ARG	A	24	-4.863	48.973	39.483	1.00	100.00
	ATOM	182	NH2	ARG	A	24	-6.432	47.326	39.865	1.00	100.00



	ATOM	183	N	CYS	A	25	-1.164	50.028	44.844	1.00	32.39
	ATOM	184	CA	CYS	A	25	-1.698	50.969	45.813	1.00	33.30
	ATOM	185	C	CYS	A	25	-1.061	52.325	45.724	1.00	34.82
5	ATOM	186	O	CYS	A	25	-0.012	52.514	45.076	1.00	31.03
	ATOM	187	CB	CYS	A	25	-1.503	50.440	47.257	1.00	34.67
	ATOM	188	SG	CYS	A	25	0.231	50.529	47.798	1.00	38.07
	ATOM	189	N	SER	A	26	-1.711	53.257	46.418	1.00	34.39
	ATOM	190	CA	SER	A	26	-1.196	54.601	46.437	1.00	36.77
10	ATOM	191	C	SER	A	26	-0.963	55.133	47.821	1.00	39.85
	ATOM	192	O	SER	A	26	-1.738	54.853	48.757	1.00	37.56
	ATOM	193	CB	SER	A	26	-1.889	55.600	45.530	1.00	42.70
	ATOM	194	OG	SER	A	26	-0.899	56.330	44.824	1.00	61.74
	ATOM	195	N	VAL	A	27	0.133	55.897	47.886	1.00	39.43
15	ATOM	196	CA	VAL	A	27	0.624	56.583	49.081	1.00	41.31
	ATOM	197	C	VAL	A	27	0.209	58.043	49.082	1.00	44.32
	ATOM	198	O	VAL	A	27	0.562	58.799	48.187	1.00	45.24
	ATOM	199	CB	VAL	A	27	2.135	56.531	49.207	1.00	46.35
	ATOM	200	CG1	VAL	A	27	2.524	57.207	50.522	1.00	45.62
20	ATOM	201	CG2	VAL	A	27	2.592	55.079	49.178	1.00	47.20
	ATOM	202	N	ASP	A	28	-0.553	58.417	50.093	1.00	37.94
	ATOM	203	CA	ASP	A	28	-1.040	59.764	50.237	1.00	35.28
	ATOM	204	C	ASP	A	28	-0.595	60.366	51.538	1.00	33.85
	ATOM	205	O	ASP	A	28	-1.181	60.099	52.598	1.00	28.52
25	ATOM	206	CB	ASP	A	28	-2.559	59.807	50.189	1.00	37.09
	ATOM	207	CG	ASP	A	28	-3.055	61.205	50.095	1.00	55.20
	ATOM	208	OD1	ASP	A	28	-2.611	62.119	50.767	1.00	59.17
	ATOM	209	OD2	ASP	A	28	-3.993	61.335	49.192	1.00	61.41
	ATOM	210	N	PHE	A	29	0.436	61.174	51.405	1.00	36.42
30	ATOM	211	CA	PHE	A	29	1.044	61.888	52.512	1.00	43.07
	ATOM	212	C	PHE	A	29	0.105	62.928	53.077	1.00	51.14
	ATOM	213	O	PHE	A	29	0.161	63.279	54.257	1.00	51.35
	ATOM	214	CB	PHE	A	29	2.410	62.517	52.143	1.00	47.77
	ATOM	215	CG	PHE	A	29	3.519	61.485	52.079	1.00	50.86
35	ATOM	216	CD1	PHE	A	29	4.066	60.957	53.247	1.00	52.08
	ATOM	217	CD2	PHE	A	29	3.996	61.001	50.863	1.00	53.94
	ATOM	218	CE1	PHE	A	29	5.075	59.995	53.215	1.00	52.83
	ATOM	219	CE2	PHE	A	29	5.013	60.046	50.813	1.00	56.46
	ATOM	220	CZ	PHE	A	29	5.559	59.538	51.992	1.00	53.39
40	ATOM	221	N	THR	A	30	-0.766	63.420	52.220	1.00	47.10
	ATOM	222	CA	THR	A	30	-1.718	64.386	52.654	1.00	45.48
	ATOM	223	C	THR	A	30	-2.788	63.715	53.509	1.00	48.41
	ATOM	224	O	THR	A	30	-3.045	64.082	54.649	1.00	48.64
	ATOM	225	CB	THR	A	30	-2.283	65.097	51.434	1.00	54.06
45	ATOM	226	OG1	THR	A	30	-1.428	66.186	51.107	1.00	50.68
	ATOM	227	CG2	THR	A	30	-3.697	65.568	51.745	1.00	60.28
	ATOM	228	N	ARG	A	31	-3.392	62.683	52.978	1.00	46.66
	ATOM	229	CA	ARG	A	31	-4.404	61.987	53.734	1.00	47.88
	ATOM	230	C	ARG	A	31	-3.826	60.999	54.750	1.00	45.46
50	ATOM	231	O	ARG	A	31	-4.590	60.468	55.551	1.00	41.52
	ATOM	232	CB	ARG	A	31	-5.335	61.214	52.805	1.00	56.73
	ATOM	233	CG	ARG	A	31	-5.950	62.065	51.700	1.00	84.16
	ATOM	234	CD	ARG	A	31	-7.338	61.568	51.284	1.00	100.00
	ATOM	235	NE	ARG	A	31	-7.344	60.450	50.327	1.00	100.00
55	ATOM	236	CZ	ARG	A	31	-8.148	60.371	49.251	1.00	100.00
	ATOM	237	NH1	ARG	A	31	-9.034	61.324	48.944	1.00	100.00
	ATOM	238	NH2	ARG	A	31	-8.062	59.298	48.460	1.00	100.00
	ATOM	239	N	ARG	A	32	-2.489	60.752	54.683	1.00	39.71
	ATOM	240	CA	ARG	A	32	-1.751	59.798	55.531	1.00	39.09
60	ATOM	241	C	ARG	A	32	-2.324	58.411	55.379	1.00	39.62
	ATOM	242	O	ARG	A	32	-2.495	57.655	56.337	1.00	33.10
	ATOM	243	CB	ARG	A	32	-1.523	60.115	57.022	1.00	37.14
	ATOM	244	CG	ARG	A	32	-1.197	61.569	57.337	1.00	71.25
	ATOM	245	CD	ARG	A	32	0.277	61.834	57.686	1.00	100.00
	ATOM	246	NE	ARG	A	32	0.703	61.299	58.986	1.00	100.00

	ATOM	247	CZ	ARG	A	32	1.284	62.005	59.961	1.00	79.51
	ATOM	248	NH1	ARG	A	32	1.522	63.308	59.831	1.00	55.73
	ATOM	249	NH2	ARG	A	32	1.626	61.387	61.098	1.00	44.96
	ATOM	250	N	THR	A	33	-2.612	58.068	54.139	1.00	39.83
5	ATOM	251	CA	THR	A	33	-3.162	56.752	53.902	1.00	39.31
	ATOM	252	C	THR	A	33	-2.543	56.010	52.760	1.00	41.13
	ATOM	253	O	THR	A	33	-1.853	56.574	51.926	1.00	42.93
	ATOM	254	CB	THR	A	33	-4.635	56.835	53.641	1.00	43.44
	ATOM	255	OG1	THR	A	33	-4.798	57.636	52.468	1.00	40.17
10	ATOM	256	CG2	THR	A	33	-5.245	57.468	54.880	1.00	38.71
	ATOM	257	N	LEU	A	34	-2.822	54.717	52.762	1.00	35.26
	ATOM	258	CA	LEU	A	34	-2.372	53.799	51.745	1.00	35.20
	ATOM	259	C	LEU	A	34	-3.632	53.293	51.098	1.00	32.49
	ATOM	260	O	LEU	A	34	-4.474	52.670	51.751	1.00	30.96
15	ATOM	261	CB	LEU	A	34	-1.522	52.651	52.322	1.00	37.07
	ATOM	262	CG	LEU	A	34	-0.149	52.571	51.685	1.00	42.99
	ATOM	263	CD1	LEU	A	34	0.648	51.425	52.285	1.00	40.58
	ATOM	264	CD2	LEU	A	34	-0.360	52.302	50.208	1.00	50.83
	ATOM	265	N	THR	A	35	-3.800	53.632	49.838	1.00	28.72
20	ATOM	266	CA	THR	A	35	-5.017	53.228	49.198	1.00	31.26
	ATOM	267	C	THR	A	35	-4.838	52.329	48.013	1.00	36.54
	ATOM	268	O	THR	A	35	-3.940	52.546	47.187	1.00	34.70
	ATOM	269	CB	THR	A	35	-5.877	54.427	48.813	1.00	44.88
	ATOM	270	OG1	THR	A	35	-5.484	55.549	49.579	1.00	58.59
25	ATOM	271	CG2	THR	A	35	-7.324	54.094	49.109	1.00	49.42
	ATOM	272	N	GLY	A	36	-5.726	51.329	47.950	1.00	32.57
	ATOM	273	CA	GLY	A	36	-5.696	50.405	46.837	1.00	33.89
	ATOM	274	C	GLY	A	36	-6.418	49.074	46.993	1.00	34.50
	ATOM	275	O	GLY	A	36	-7.441	48.919	47.678	1.00	31.78
30	ATOM	276	N	THR	A	37	-5.836	48.103	46.293	1.00	35.93
	ATOM	277	CA	THR	A	37	-6.327	46.723	46.281	1.00	36.12
	ATOM	278	C	THR	A	37	-5.268	45.696	46.473	1.00	35.67
	ATOM	279	O	THR	A	37	-4.155	45.795	45.964	1.00	33.86
	ATOM	280	CB	THR	A	37	-7.119	46.306	45.050	1.00	42.21
35	ATOM	281	OG1	THR	A	37	-6.507	46.804	43.870	1.00	30.98
	ATOM	282	CG2	THR	A	37	-8.547	46.793	45.229	1.00	50.03
	ATOM	283	N	ALA	A	38	-5.687	44.705	47.220	1.00	32.95
	ATOM	284	CA	ALA	A	38	-4.886	43.570	47.533	1.00	33.45
	ATOM	285	C	ALA	A	38	-5.481	42.374	46.824	1.00	35.47
40	ATOM	286	O	ALA	A	38	-6.580	41.906	47.151	1.00	32.91
	ATOM	287	CB	ALA	A	38	-4.845	43.341	49.044	1.00	33.72
	ATOM	288	N	ALA	A	39	-4.764	41.874	45.834	1.00	32.70
	ATOM	289	CA	ALA	A	39	-5.274	40.702	45.140	1.00	31.59
	ATOM	290	C	ALA	A	39	-4.692	39.464	45.770	1.00	32.11
45	ATOM	291	O	ALA	A	39	-3.514	39.147	45.608	1.00	32.46
	ATOM	292	CB	ALA	A	39	-4.934	40.729	43.662	1.00	32.13
	ATOM	293	N	LEU	A	40	-5.505	38.774	46.508	1.00	27.06
	ATOM	294	CA	LEU	A	40	-5.001	37.593	47.155	1.00	29.04
50	ATOM	295	C	LEU	A	40	-5.331	36.322	46.364	1.00	36.88
	ATOM	296	O	LEU	A	40	-6.485	36.100	45.963	1.00	28.89
	ATOM	297	CB	LEU	A	40	-5.587	37.451	48.600	1.00	29.39
	ATOM	298	CG	LEU	A	40	-5.303	38.598	49.559	1.00	31.39
	ATOM	299	CD1	LEU	A	40	-5.435	38.063	50.970	1.00	32.62
55	ATOM	300	CD2	LEU	A	40	-3.879	39.019	49.355	1.00	31.60
	ATOM	301	N	THR	A	41	-4.310	35.470	46.165	1.00	42.40
	ATOM	302	CA	THR	A	41	-4.523	34.210	45.488	1.00	43.93
	ATOM	303	C	THR	A	41	-4.548	33.155	46.552	1.00	43.75
	ATOM	304	O	THR	A	41	-3.510	32.827	47.115	1.00	45.22
	ATOM	305	CB	THR	A	41	-3.511	33.892	44.402	1.00	55.44
60	ATOM	306	OG1	THR	A	41	-3.604	34.885	43.418	1.00	55.57
	ATOM	307	CG2	THR	A	41	-3.872	32.544	43.802	1.00	47.78
	ATOM	308	N	VAL	A	42	-5.755	32.688	46.848	1.00	33.25
	ATOM	309	CA	VAL	A	42	-5.946	31.720	47.893	1.00	32.21
	ATOM	310	C	VAL	A	42	-6.166	30.312	47.380	1.00	40.56

	ATOM	311	O	VAL	A	42	-6.827	30.105	46.376	1.00	42.56
	ATOM	312	CB	VAL	A	42	-7.017	32.153	48.920	1.00	36.45
	ATOM	313	CG1	VAL	A	42	-6.817	31.451	50.266	1.00	36.89
5	ATOM	314	CG2	VAL	A	42	-6.963	33.665	49.170	1.00	36.10
	ATOM	315	N	GLN	A	43	-5.590	29.357	48.117	1.00	35.91
	ATOM	316	CA	GLN	A	43	-5.678	27.945	47.838	1.00	31.59
	ATOM	317	C	GLN	A	43	-6.346	27.244	48.988	1.00	38.98
	ATOM	318	O	GLN	A	43	-5.916	27.317	50.144	1.00	40.92
10	ATOM	319	CB	GLN	A	43	-4.305	27.319	47.568	1.00	30.50
	ATOM	320	CG	GLN	A	43	-4.362	25.800	47.259	1.00	53.80
	ATOM	321	CD	GLN	A	43	-2.986	25.177	47.099	1.00	62.47
	ATOM	322	OE1	GLN	A	43	-2.569	24.842	45.978	1.00	57.34
	ATOM	323	NE2	GLN	A	43	-2.274	25.037	48.224	1.00	43.72
15	ATOM	324	N	SER	A	44	-7.423	26.555	48.664	1.00	33.83
	ATOM	325	CA	SER	A	44	-8.166	25.839	49.678	1.00	31.38
	ATOM	326	C	SER	A	44	-7.495	24.557	50.117	1.00	42.10
	ATOM	327	O	SER	A	44	-6.955	23.814	49.292	1.00	42.78
	ATOM	328	CB	SER	A	44	-9.576	25.530	49.226	1.00	28.60
20	ATOM	329	OG	SER	A	44	-10.234	24.785	50.224	1.00	34.57
	ATOM	330	N	GLN	A	45	-7.579	24.286	51.423	1.00	38.84
	ATOM	331	CA	GLN	A	45	-7.007	23.082	51.994	1.00	37.05
	ATOM	332	C	GLN	A	45	-8.082	22.050	52.269	1.00	47.57
	ATOM	333	O	GLN	A	45	-7.801	20.917	52.678	1.00	42.94
25	ATOM	334	CB	GLN	A	45	-6.247	23.411	53.280	1.00	36.10
	ATOM	335	CG	GLN	A	45	-5.246	24.539	53.034	1.00	54.73
	ATOM	336	CD	GLN	A	45	-4.323	24.206	51.888	1.00	45.43
	ATOM	337	OE1	GLN	A	45	-4.257	24.888	50.833	1.00	39.23
	ATOM	338	NE2	GLN	A	45	-3.621	23.121	52.092	1.00	29.80
30	ATOM	339	N	GLU	A	46	-9.330	22.459	52.048	1.00	50.54
	ATOM	340	CA	GLU	A	46	-10.454	21.573	52.283	1.00	50.99
	ATOM	341	C	GLU	A	46	-11.496	21.583	51.179	1.00	54.49
	ATOM	342	O	GLU	A	46	-11.518	22.406	50.261	1.00	54.00
	ATOM	343	CB	GLU	A	46	-11.139	21.793	53.657	1.00	51.61
35	ATOM	344	CG	GLU	A	46	-10.581	22.979	54.454	1.00	55.93
	ATOM	345	CD	GLU	A	46	-11.427	23.329	55.646	1.00	78.67
	ATOM	346	OE1	GLU	A	46	-12.563	23.765	55.543	1.00	69.56
	ATOM	347	OE2	GLU	A	46	-10.814	23.129	56.796	1.00	75.10
	ATOM	348	N	ASP	A	47	-12.387	20.630	51.300	1.00	48.90
40	ATOM	349	CA	ASP	A	47	-13.450	20.549	50.362	1.00	49.03
	ATOM	350	C	ASP	A	47	-14.591	21.425	50.846	1.00	55.15
	ATOM	351	O	ASP	A	47	-14.760	21.631	52.044	1.00	56.66
	ATOM	352	CB	ASP	A	47	-13.913	19.099	50.227	1.00	50.20
	ATOM	353	CG	ASP	A	47	-13.083	18.376	49.218	1.00	66.88
45	ATOM	354	OD1	ASP	A	47	-12.340	18.945	48.434	1.00	66.27
	ATOM	355	OD2	ASP	A	47	-13.235	17.081	49.284	1.00	76.37
	ATOM	356	N	ASN	A	48	-15.391	21.941	49.929	1.00	50.25
	ATOM	357	CA	ASN	A	48	-16.519	22.755	50.339	1.00	48.45
	ATOM	358	C	ASN	A	48	-16.115	24.000	51.115	1.00	43.07
50	ATOM	359	O	ASN	A	48	-16.699	24.351	52.138	1.00	39.78
	ATOM	360	CB	ASN	A	48	-17.559	21.909	51.117	1.00	51.19
	ATOM	361	CG	ASN	A	48	-18.985	22.417	51.005	1.00	76.39
	ATOM	362	OD1	ASN	A	48	-19.594	22.348	49.929	1.00	85.15
	ATOM	363	ND2	ASN	A	48	-19.515	22.928	52.115	1.00	68.29
55	ATOM	364	N	LEU	A	49	-15.113	24.688	50.628	1.00	35.36
	ATOM	365	CA	LEU	A	49	-14.728	25.874	51.335	1.00	34.40
	ATOM	366	C	LEU	A	49	-15.601	27.009	50.851	1.00	47.38
	ATOM	367	O	LEU	A	49	-15.421	27.515	49.734	1.00	45.47
	ATOM	368	CB	LEU	A	49	-13.239	26.152	51.173	1.00	31.04
60	ATOM	369	CG	LEU	A	49	-12.781	27.394	51.885	1.00	29.82
	ATOM	370	CD1	LEU	A	49	-12.725	27.137	53.385	1.00	28.15
	ATOM	371	CD2	LEU	A	49	-11.394	27.753	51.368	1.00	30.24
	ATOM	372	N	ARG	A	50	-16.568	27.363	51.699	1.00	50.49
	ATOM	373	CA	ARG	A	50	-17.560	28.392	51.401	1.00	52.83
	ATOM	374	C	ARG	A	50	-17.169	29.838	51.702	1.00	55.57

	ATOM	375	O	ARG	A	50	-17.627	30.760	51.011	1.00	53.89
	ATOM	376	CB	ARG	A	50	-18.928	28.028	51.986	1.00	58.35
	ATOM	377	CG	ARG	A	50	-19.863	27.354	50.980	1.00	74.76
5	ATOM	378	CD	ARG	A	50	-20.438	26.024	51.462	1.00	81.60
	ATOM	379	NE	ARG	A	50	-21.214	25.355	50.415	1.00	94.37
	ATOM	380	CZ	ARG	A	50	-22.465	24.888	50.538	1.00	100.00
	ATOM	381	NH1	ARG	A	50	-23.151	24.990	51.687	1.00	100.00
	ATOM	382	NH2	ARG	A	50	-23.046	24.297	49.471	1.00	74.34
10	ATOM	383	N	SER	A	51	-16.331	30.006	52.743	1.00	54.71
	ATOM	384	CA	SER	A	51	-15.823	31.297	53.224	1.00	53.49
	ATOM	385	C	SER	A	51	-14.495	31.156	53.955	1.00	53.57
	ATOM	386	O	SER	A	51	-14.146	30.062	54.420	1.00	52.93
	ATOM	387	CB	SER	A	51	-16.788	31.900	54.232	1.00	54.03
	ATOM	388	OG	SER	A	51	-16.871	31.048	55.373	1.00	45.15
15	ATOM	389	N	LEU	A	52	-13.796	32.298	54.067	1.00	47.19
	ATOM	390	CA	LEU	A	52	-12.519	32.422	54.762	1.00	45.66
	ATOM	391	C	LEU	A	52	-12.415	33.671	55.640	1.00	50.43
	ATOM	392	O	LEU	A	52	-13.145	34.633	55.471	1.00	52.64
20	ATOM	393	CB	LEU	A	52	-11.235	32.117	53.923	1.00	44.20
	ATOM	394	CG	LEU	A	52	-10.896	33.044	52.745	1.00	43.98
	ATOM	395	CD1	LEU	A	52	-11.739	32.687	51.554	1.00	42.82
	ATOM	396	CD2	LEU	A	52	-11.128	34.501	53.094	1.00	44.71
	ATOM	397	N	VAL	A	53	-11.483	33.658	56.579	1.00	44.97
25	ATOM	398	CA	VAL	A	53	-11.271	34.781	57.455	1.00	41.69
	ATOM	399	C	VAL	A	53	-9.859	35.309	57.339	1.00	44.25
	ATOM	400	O	VAL	A	53	-8.866	34.551	57.302	1.00	45.42
	ATOM	401	CB	VAL	A	53	-11.565	34.420	58.906	1.00	45.48
	ATOM	402	CG1	VAL	A	53	-11.223	35.554	59.853	1.00	44.94
30	ATOM	403	CG2	VAL	A	53	-13.030	34.073	59.050	1.00	45.79
	ATOM	404	N	LEU	A	54	-9.796	36.627	57.166	1.00	35.12
	ATOM	405	CA	LEU	A	54	-8.555	37.333	57.080	1.00	34.14
	ATOM	406	C	LEU	A	54	-8.377	38.207	58.326	1.00	38.92
	ATOM	407	O	LEU	A	54	-9.281	38.457	59.108	1.00	37.45
35	ATOM	408	CB	LEU	A	54	-8.461	38.216	55.831	1.00	34.73
	ATOM	409	CG	LEU	A	54	-8.539	37.469	54.510	1.00	40.25
	ATOM	410	CD1	LEU	A	54	-8.416	38.488	53.374	1.00	40.69
	ATOM	411	CD2	LEU	A	54	-7.424	36.428	54.415	1.00	39.64
	ATOM	412	N	ASP	A	55	-7.192	38.674	58.524	1.00	35.02
40	ATOM	413	CA	ASP	A	55	-6.918	39.526	59.627	1.00	31.65
	ATOM	414	C	ASP	A	55	-6.956	40.941	59.078	1.00	40.38
	ATOM	415	O	ASP	A	55	-6.754	41.151	57.886	1.00	39.98
	ATOM	416	CB	ASP	A	55	-5.494	39.232	60.075	1.00	30.92
	ATOM	417	CG	ASP	A	55	-5.397	38.103	61.037	1.00	35.96
45	ATOM	418	OD1	ASP	A	55	-6.049	38.074	62.066	1.00	38.49
	ATOM	419	OD2	ASP	A	55	-4.491	37.205	60.682	1.00	36.53
	ATOM	420	N	THR	A	56	-7.196	41.900	59.963	1.00	42.93
	ATOM	421	CA	THR	A	56	-7.243	43.334	59.661	1.00	41.75
	ATOM	422	C	THR	A	56	-7.101	44.128	60.967	1.00	37.46
50	ATOM	423	O	THR	A	56	-7.517	43.687	62.049	1.00	36.98
	ATOM	424	CB	THR	A	56	-8.514	43.825	58.894	1.00	37.17
	ATOM	425	OG1	THR	A	56	-9.587	43.957	59.805	1.00	31.84
	ATOM	426	CG2	THR	A	56	-8.910	42.943	57.714	1.00	33.58
	ATOM	427	N	LYS	A	57	-6.513	45.304	60.863	1.00	26.63
55	ATOM	428	CA	LYS	A	57	-6.363	46.134	62.020	1.00	25.64
	ATOM	429	C	LYS	A	57	-6.585	47.539	61.547	1.00	30.08
	ATOM	430	O	LYS	A	57	-5.854	48.012	60.711	1.00	25.68
	ATOM	431	CB	LYS	A	57	-4.991	45.983	62.641	1.00	27.34
	ATOM	432	CG	LYS	A	57	-4.907	46.387	64.100	1.00	35.83
60	ATOM	433	CD	LYS	A	57	-3.514	46.904	64.471	1.00	35.57
	ATOM	434	CE	LYS	A	57	-2.901	46.225	65.689	1.00	50.54
	ATOM	435	NZ	LYS	A	57	-2.521	47.180	66.757	1.00	55.43
	ATOM	436	N	ASP	A	58	-7.617	48.188	62.065	1.00	32.68
	ATOM	437	CA	ASP	A	58	-7.895	49.545	61.665	1.00	35.27
	ATOM	438	C	ASP	A	58	-7.894	49.710	60.149	1.00	38.24

5	ATOM	439	O	ASP	A	58	-7.289	50.627	59.571	1.00	35.86
	ATOM	440	CB	ASP	A	58	-6.968	50.550	62.386	1.00	37.22
	ATOM	441	CG	ASP	A	58	-7.041	50.393	63.880	1.00	50.71
	ATOM	442	OD1	ASP	A	58	-8.073	50.136	64.478	1.00	57.20
	ATOM	443	OD2	ASP	A	58	-5.878	50.562	64.463	1.00	45.82
10	ATOM	444	N	LEU	A	59	-8.604	48.796	59.516	1.00	37.68
	ATOM	445	CA	LEU	A	59	-8.720	48.813	58.079	1.00	39.36
	ATOM	446	C	LEU	A	59	-10.077	49.243	57.555	1.00	45.51
	ATOM	447	O	LEU	A	59	-11.146	48.946	58.120	1.00	44.18
	ATOM	448	CB	LEU	A	59	-8.265	47.506	57.422	1.00	38.42
15	ATOM	449	CG	LEU	A	59	-6.762	47.475	57.218	1.00	37.40
	ATOM	450	CD1	LEU	A	59	-6.392	46.173	56.526	1.00	36.39
	ATOM	451	CD2	LEU	A	59	-6.321	48.655	56.361	1.00	36.57
	ATOM	452	N	THR	A	60	-9.984	49.949	56.437	1.00	42.59
	ATOM	453	CA	THR	A	60	-11.132	50.483	55.734	1.00	42.63
20	ATOM	454	C	THR	A	60	-11.357	49.705	54.463	1.00	38.18
	ATOM	455	O	THR	A	60	-10.632	49.856	53.454	1.00	34.33
	ATOM	456	CB	THR	A	60	-11.030	52.028	55.532	1.00	65.15
	ATOM	457	OG1	THR	A	60	-11.806	52.736	56.504	1.00	67.56
	ATOM	458	CG2	THR	A	60	-11.345	52.480	54.104	1.00	56.89
25	ATOM	459	N	ILE	A	61	-12.360	48.847	54.571	1.00	33.39
	ATOM	460	CA	ILE	A	61	-12.753	47.975	53.482	1.00	35.89
	ATOM	461	C	ILE	A	61	-13.726	48.634	52.533	1.00	41.05
	ATOM	462	O	ILE	A	61	-14.913	48.706	52.840	1.00	40.08
	ATOM	463	CB	ILE	A	61	-13.403	46.670	53.944	1.00	39.71
30	ATOM	464	CG1	ILE	A	61	-12.482	45.826	54.832	1.00	39.90
	ATOM	465	CG2	ILE	A	61	-13.788	45.900	52.691	1.00	38.96
	ATOM	466	CD1	ILE	A	61	-11.027	45.851	54.358	1.00	49.61
	ATOM	467	N	GLU	A	62	-13.219	49.080	51.391	1.00	40.23
	ATOM	468	CA	GLU	A	62	-14.040	49.700	50.365	1.00	41.73
35	ATOM	469	C	GLU	A	62	-14.986	48.633	49.826	1.00	47.09
	ATOM	470	O	GLU	A	62	-16.207	48.726	49.926	1.00	47.52
	ATOM	471	CB	GLU	A	62	-13.138	50.272	49.239	1.00	44.08
	ATOM	472	CG	GLU	A	62	-13.765	51.406	48.381	1.00	64.08
	ATOM	473	CD	GLU	A	62	-14.686	50.946	47.256	1.00	100.00
40	ATOM	474	OE1	GLU	A	62	-15.458	50.002	47.376	1.00	100.00
	ATOM	475	OE2	GLU	A	62	-14.591	51.670	46.146	1.00	75.11
	ATOM	476	N	LYS	A	63	-14.399	47.580	49.267	1.00	43.46
	ATOM	477	CA	LYS	A	63	-15.168	46.474	48.746	1.00	40.53
	ATOM	478	C	LYS	A	63	-14.250	45.307	48.489	1.00	45.38
45	ATOM	479	O	LYS	A	63	-13.046	45.500	48.362	1.00	43.51
	ATOM	480	CB	LYS	A	63	-15.818	46.830	47.428	1.00	40.46
	ATOM	481	CG	LYS	A	63	-14.789	46.959	46.321	1.00	20.53
	ATOM	482	CD	LYS	A	63	-15.367	47.555	45.054	1.00	28.36
	ATOM	483	CE	LYS	A	63	-14.315	48.158	44.139	1.00	40.61
50	ATOM	484	NZ	LYS	A	63	-14.588	47.938	42.711	1.00	54.71
	ATOM	485	N	VAL	A	64	-14.862	44.116	48.441	1.00	45.57
	ATOM	486	CA	VAL	A	64	-14.190	42.844	48.171	1.00	44.90
	ATOM	487	C	VAL	A	64	-14.666	42.263	46.841	1.00	46.44
	ATOM	488	O	VAL	A	64	-15.826	41.917	46.700	1.00	45.81
55	ATOM	489	CB	VAL	A	64	-14.505	41.748	49.192	1.00	46.24
	ATOM	490	CG1	VAL	A	64	-13.864	40.471	48.669	1.00	44.81
	ATOM	491	CG2	VAL	A	64	-14.040	42.048	50.627	1.00	44.77
	ATOM	492	N	VAL	A	65	-13.793	42.099	45.875	1.00	43.10
	ATOM	493	CA	VAL	A	65	-14.240	41.537	44.604	1.00	41.42
60	ATOM	494	C	VAL	A	65	-13.707	40.156	44.282	1.00	42.13
	ATOM	495	O	VAL	A	65	-12.605	39.787	44.660	1.00	42.64
	ATOM	496	CB	VAL	A	65	-13.856	42.462	43.484	1.00	44.58
	ATOM	497	CG1	VAL	A	65	-14.520	42.037	42.189	1.00	42.79
	ATOM	498	CG2	VAL	A	65	-14.264	43.874	43.883	1.00	45.05
	ATOM	499	N	ILE	A	66	-14.515	39.402	43.556	1.00	38.68
	ATOM	500	CA	ILE	A	66	-14.179	38.053	43.113	1.00	39.98
	ATOM	501	C	ILE	A	66	-14.899	37.774	41.802	1.00	44.86
	ATOM	502	O	ILE	A	66	-16.136	37.735	41.729	1.00	42.69

	ATOM	503	CB	ILE	A	66	-14.520	36.947	44.113	1.00	44.28
	ATOM	504	CG1	ILE	A	66	-13.813	37.127	45.445	1.00	47.27
	ATOM	505	CG2	ILE	A	66	-14.141	35.578	43.550	1.00	42.84
5	ATOM	506	CD1	ILE	A	66	-14.352	36.169	46.514	1.00	38.79
	ATOM	507	N	ASN	A	67	-14.120	37.549	40.759	1.00	42.94
	ATOM	508	CA	ASN	A	67	-14.715	37.266	39.472	1.00	44.24
	ATOM	509	C	ASN	A	67	-15.541	38.444	39.008	1.00	54.25
	ATOM	510	O	ASN	A	67	-16.743	38.344	38.768	1.00	57.56
10	ATOM	511	CB	ASN	A	67	-15.595	36.007	39.507	1.00	40.72
	ATOM	512	CG	ASN	A	67	-14.788	34.759	39.745	1.00	57.39
	ATOM	513	OD1	ASN	A	67	-13.581	34.711	39.454	1.00	52.63
	ATOM	514	ND2	ASN	A	67	-15.446	33.760	40.317	1.00	44.54
	ATOM	515	N	GLY	A	68	-14.876	39.574	38.899	1.00	50.43
15	ATOM	516	CA	GLY	A	68	-15.517	40.796	38.462	1.00	48.89
	ATOM	517	C	GLY	A	68	-16.807	41.115	39.194	1.00	48.77
	ATOM	518	O	GLY	A	68	-17.523	42.018	38.803	1.00	51.39
	ATOM	519	N	GLN	A	69	-17.129	40.385	40.244	1.00	40.06
	ATOM	520	CA	GLN	A	69	-18.348	40.716	40.928	1.00	40.02
20	ATOM	521	C	GLN	A	69	-18.031	41.059	42.364	1.00	50.45
	ATOM	522	O	GLN	A	69	-16.943	40.748	42.855	1.00	50.53
	ATOM	523	CB	GLN	A	69	-19.415	39.602	40.829	1.00	40.78
	ATOM	524	CG	GLN	A	69	-19.966	39.367	39.414	1.00	23.77
	ATOM	525	CD	GLN	A	69	-20.513	40.646	38.831	1.00	56.53
25	ATOM	526	OE1	GLN	A	69	-19.974	41.198	37.859	1.00	55.28
	ATOM	527	NE2	GLN	A	69	-21.588	41.134	39.437	1.00	62.26
	ATOM	528	N	GLU	A	70	-18.975	41.718	43.028	1.00	49.43
	ATOM	529	CA	GLU	A	70	-18.766	42.094	44.407	1.00	50.67
	ATOM	530	C	GLU	A	70	-19.296	40.996	45.288	1.00	57.90
30	ATOM	531	O	GLU	A	70	-20.272	40.367	44.909	1.00	63.90
	ATOM	532	CB	GLU	A	70	-19.449	43.434	44.732	1.00	52.26
	ATOM	533	CG	GLU	A	70	-18.824	44.624	43.970	1.00	64.80
	ATOM	534	CD	GLU	A	70	-19.181	45.967	44.555	1.00	91.82
	ATOM	535	OE1	GLU	A	70	-19.749	46.108	45.629	1.00	100.00
	ATOM	536	OE2	GLU	A	70	-18.814	46.963	43.785	1.00	76.01
35	ATOM	537	N	VAL	A	71	-18.655	40.742	46.433	1.00	47.28
	ATOM	538	CA	VAL	A	71	-19.119	39.685	47.335	1.00	43.84
	ATOM	539	C	VAL	A	71	-19.434	40.153	48.768	1.00	41.62
	ATOM	540	O	VAL	A	71	-18.983	41.206	49.254	1.00	35.70
40	ATOM	541	CB	VAL	A	71	-18.308	38.361	47.273	1.00	46.05
	ATOM	542	CG1	VAL	A	71	-18.062	37.923	45.827	1.00	45.19
	ATOM	543	CG2	VAL	A	71	-16.979	38.460	48.017	1.00	45.24
	ATOM	544	N	LYS	A	72	-20.239	39.343	49.431	1.00	39.34
	ATOM	545	CA	LYS	A	72	-20.610	39.594	50.792	1.00	42.40
45	ATOM	546	C	LYS	A	72	-19.347	39.466	51.668	1.00	56.92
	ATOM	547	O	LYS	A	72	-18.399	38.729	51.334	1.00	59.27
	ATOM	548	CB	LYS	A	72	-21.719	38.629	51.211	1.00	45.76
	ATOM	549	CG	LYS	A	72	-22.378	38.960	52.557	1.00	86.98
	ATOM	550	CD	LYS	A	72	-23.898	38.767	52.606	1.00	100.00
50	ATOM	551	CE	LYS	A	72	-24.656	40.012	53.077	1.00	100.00
	ATOM	552	NZ	LYS	A	72	-26.011	39.730	53.592	1.00	100.00
	ATOM	553	N	TYR	A	73	-19.332	40.210	52.780	1.00	55.45
	ATOM	554	CA	TYR	A	73	-18.236	40.226	53.747	1.00	53.31
	ATOM	555	C	TYR	A	73	-18.636	40.884	55.068	1.00	50.87
55	ATOM	556	O	TYR	A	73	-19.552	41.703	55.139	1.00	47.82
	ATOM	557	CB	TYR	A	73	-16.891	40.741	53.214	1.00	52.73
	ATOM	558	CG	TYR	A	73	-16.765	42.244	53.227	1.00	51.76
	ATOM	559	CD1	TYR	A	73	-16.539	42.946	54.416	1.00	52.82
	ATOM	560	CD2	TYR	A	73	-16.927	42.967	52.039	1.00	53.30
60	ATOM	561	CE1	TYR	A	73	-16.439	44.340	54.422	1.00	52.71
	ATOM	562	CE2	TYR	A	73	-16.804	44.359	52.026	1.00	55.39
	ATOM	563	CZ	TYR	A	73	-16.592	45.044	53.229	1.00	63.45
	ATOM	564	OH	TYR	A	73	-16.471	46.404	53.215	1.00	69.53
	ATOM	565	N	ALA	A	74	-17.927	40.494	56.112	1.00	45.37
	ATOM	566	CA	ALA	A	74	-18.180	40.999	57.433	1.00	42.62

	ATOM	567	C	ALA	A	74	-16.892	41.265	58.222	1.00	47.81
	ATOM	568	O	ALA	A	74	-15.894	40.554	58.133	1.00	45.50
	ATOM	569	CB	ALA	A	74	-19.111	40.035	58.170	1.00	40.75
5	ATOM	570	N	LEU	A	75	-16.930	42.323	59.005	1.00	49.02
	ATOM	571	CA	LEU	A	75	-15.829	42.693	59.869	1.00	48.85
	ATOM	572	C	LEU	A	75	-16.319	42.464	61.281	1.00	47.18
	ATOM	573	O	LEU	A	75	-17.309	43.021	61.687	1.00	44.35
	ATOM	574	CB	LEU	A	75	-15.332	44.136	59.675	1.00	49.64
10	ATOM	575	CG	LEU	A	75	-14.789	44.357	58.270	1.00	58.09
	ATOM	576	CD1	LEU	A	75	-14.524	45.841	58.023	1.00	61.34
	ATOM	577	CD2	LEU	A	75	-13.512	43.565	58.069	1.00	62.34
	ATOM	578	N	GLY	A	76	-15.647	41.592	62.004	1.00	47.67
	ATOM	579	CA	GLY	A	76	-16.034	41.281	63.359	1.00	46.79
15	ATOM	580	C	GLY	A	76	-15.495	42.337	64.279	1.00	47.74
	ATOM	581	O	GLY	A	76	-14.656	43.171	63.882	1.00	42.87
	ATOM	582	N	GLU	A	77	-15.988	42.311	65.502	1.00	48.32
	ATOM	583	CA	GLU	A	77	-15.526	43.300	66.431	1.00	52.14
	ATOM	584	C	GLU	A	77	-14.029	43.195	66.679	1.00	56.71
20	ATOM	585	O	GLU	A	77	-13.418	42.120	66.591	1.00	55.78
	ATOM	586	CB	GLU	A	77	-16.357	43.341	67.732	1.00	55.55
	ATOM	587	CG	GLU	A	77	-17.198	42.063	67.969	1.00	79.57
	ATOM	588	CD	GLU	A	77	-17.440	41.739	69.427	1.00	100.00
	ATOM	589	OE1	GLU	A	77	-16.537	41.435	70.211	1.00	100.00
25	ATOM	590	OE2	GLU	A	77	-18.712	41.799	69.770	1.00	100.00
	ATOM	591	N	ARG	A	78	-13.452	44.344	67.000	1.00	54.17
	ATOM	592	CA	ARG	A	78	-12.041	44.433	67.298	1.00	53.38
	ATOM	593	C	ARG	A	78	-11.627	43.656	68.579	1.00	58.88
	ATOM	594	O	ARG	A	78	-12.247	43.767	69.635	1.00	61.35
30	ATOM	595	CB	ARG	A	78	-11.571	45.891	67.367	1.00	41.96
	ATOM	596	CG	ARG	A	78	-10.050	46.006	67.326	1.00	38.20
	ATOM	597	CD	ARG	A	78	-9.537	47.411	67.551	1.00	44.73
	ATOM	598	NE	ARG	A	78	-8.294	47.648	66.842	1.00	66.47
	ATOM	599	CZ	ARG	A	78	-7.250	48.247	67.389	1.00	97.61
35	ATOM	600	NH1	ARG	A	78	-7.276	48.692	68.645	1.00	100.00
	ATOM	601	NH2	ARG	A	78	-6.151	48.413	66.663	1.00	80.10
	ATOM	602	N	GLN	A	79	-10.557	42.857	68.463	1.00	49.54
	ATOM	603	CA	GLN	A	79	-9.995	42.115	69.566	1.00	47.71
	ATOM	604	C	GLN	A	79	-8.664	42.789	69.865	1.00	49.77
40	ATOM	605	O	GLN	A	79	-7.626	42.421	69.333	1.00	52.63
	ATOM	606	CB	GLN	A	79	-9.803	40.613	69.240	1.00	49.05
	ATOM	607	CG	GLN	A	79	-11.109	39.794	69.339	1.00	57.32
	ATOM	608	CD	GLN	A	79	-11.043	38.435	68.656	1.00	69.51
	ATOM	609	OE1	GLN	A	79	-10.400	37.480	69.152	1.00	49.72
45	ATOM	610	NE2	GLN	A	79	-11.727	38.340	67.517	1.00	62.60
	ATOM	611	N	SER	A	80	-8.699	43.826	70.683	1.00	41.74
	ATOM	612	CA	SER	A	80	-7.490	44.543	71.022	1.00	37.90
	ATOM	613	C	SER	A	80	-6.437	44.559	69.920	1.00	35.98
	ATOM	614	O	SER	A	80	-6.736	44.939	68.801	1.00	34.52
50	ATOM	615	CB	SER	A	80	-6.910	44.144	72.372	1.00	39.07
	ATOM	616	OG	SER	A	80	-7.255	42.803	72.684	1.00	61.32
	ATOM	617	N	TYR	A	81	-5.206	44.154	70.289	1.00	29.92
	ATOM	618	CA	TYR	A	81	-4.027	44.114	69.430	1.00	26.45
	ATOM	619	C	TYR	A	81	-4.163	43.116	68.285	1.00	30.82
55	ATOM	620	O	TYR	A	81	-3.480	43.215	67.269	1.00	34.48
	ATOM	621	CB	TYR	A	81	-2.727	43.893	70.257	1.00	25.19
	ATOM	622	CG	TYR	A	81	-2.713	42.491	70.839	1.00	24.57
	ATOM	623	CD1	TYR	A	81	-3.327	42.247	72.066	1.00	27.27
	ATOM	624	CD2	TYR	A	81	-2.165	41.410	70.148	1.00	21.82
60	ATOM	625	CE1	TYR	A	81	-3.380	40.975	72.632	1.00	26.49
	ATOM	626	CE2	TYR	A	81	-2.230	40.122	70.682	1.00	23.48
	ATOM	627	CZ	TYR	A	81	-2.827	39.908	71.930	1.00	38.28
	ATOM	628	OH	TYR	A	81	-2.889	38.653	72.493	1.00	42.17
	ATOM	629	N	LYS	A	82	-5.038	42.136	68.415	1.00	26.97
	ATOM	630	CA	LYS	A	82	-5.170	41.229	67.293	1.00	27.99

	ATOM	631	C	LYS	A	82	-5.867	41.898	66.072	1.00	38.90
	ATOM	632	O	LYS	A	82	-5.614	41.541	64.900	1.00	37.15
	ATOM	633	CB	LYS	A	82	-5.785	39.918	67.708	1.00	27.59
5	ATOM	634	CG	LYS	A	82	-5.169	39.451	69.008	1.00	39.68
	ATOM	635	CD	LYS	A	82	-5.435	37.993	69.350	1.00	46.78
	ATOM	636	CE	LYS	A	82	-6.414	37.819	70.492	1.00	59.84
	ATOM	637	NZ	LYS	A	82	-7.097	36.523	70.452	1.00	63.48
	ATOM	638	N	GLY	A	83	-6.738	42.894	66.367	1.00	35.64
10	ATOM	639	CA	GLY	A	83	-7.512	43.620	65.368	1.00	33.65
	ATOM	640	C	GLY	A	83	-8.866	42.925	65.111	1.00	32.95
	ATOM	641	O	GLY	A	83	-9.297	42.063	65.870	1.00	28.28
	ATOM	642	N	SER	A	84	-9.535	43.300	64.026	1.00	34.51
	ATOM	643	CA	SER	A	84	-10.839	42.742	63.673	1.00	36.13
15	ATOM	644	C	SER	A	84	-10.796	41.724	62.549	1.00	40.65
	ATOM	645	O	SER	A	84	-10.173	41.893	61.501	1.00	39.77
	ATOM	646	CB	SER	A	84	-11.883	43.808	63.383	1.00	37.68
	ATOM	647	OG	SER	A	84	-11.812	44.832	64.352	1.00	45.14
	ATOM	648	N	PRO	A	85	-11.491	40.656	62.791	1.00	37.01
20	ATOM	649	CA	PRO	A	85	-11.573	39.559	61.863	1.00	34.91
	ATOM	650	C	PRO	A	85	-12.459	39.946	60.712	1.00	35.92
	ATOM	651	O	PRO	A	85	-13.514	40.522	60.941	1.00	35.30
	ATOM	652	CB	PRO	A	85	-12.227	38.406	62.647	1.00	37.00
	ATOM	653	CG	PRO	A	85	-12.714	38.981	63.974	1.00	44.97
25	ATOM	654	CD	PRO	A	85	-12.325	40.462	64.004	1.00	40.72
	ATOM	655	N	MET	A	86	-12.018	39.642	59.487	1.00	30.47
	ATOM	656	CA	MET	A	86	-12.756	39.960	58.275	1.00	28.55
	ATOM	657	C	MET	A	86	-13.165	38.683	57.552	1.00	40.49
	ATOM	658	O	MET	A	86	-12.338	38.015	56.954	1.00	39.69
30	ATOM	659	CB	MET	A	86	-11.921	40.829	57.337	1.00	29.51
	ATOM	660	CG	MET	A	86	-12.750	41.242	56.136	1.00	37.40
	ATOM	661	SD	MET	A	86	-11.816	41.878	54.701	1.00	47.84
	ATOM	662	CE	MET	A	86	-13.244	42.527	53.805	1.00	46.52
	ATOM	663	N	GLU	A	87	-14.441	38.324	57.610	1.00	44.34
35	ATOM	664	CA	GLU	A	87	-14.912	37.107	56.950	1.00	47.21
	ATOM	665	C	GLU	A	87	-15.495	37.352	55.560	1.00	51.53
	ATOM	666	O	GLU	A	87	-16.425	38.129	55.424	1.00	53.92
	ATOM	667	CB	GLU	A	87	-15.942	36.390	57.813	1.00	49.46
	ATOM	668	CG	GLU	A	87	-16.144	34.937	57.389	1.00	56.39
40	ATOM	669	CD	GLU	A	87	-17.300	34.316	58.104	1.00	80.78
	ATOM	670	OE1	GLU	A	87	-18.439	34.738	57.994	1.00	86.69
	ATOM	671	OE2	GLU	A	87	-16.943	33.301	58.868	1.00	68.69
	ATOM	672	N	ILE	A	88	-14.942	36.659	54.544	1.00	43.84
	ATOM	673	CA	ILE	A	88	-15.332	36.765	53.145	1.00	40.15
	ATOM	674	C	ILE	A	88	-16.145	35.610	52.613	1.00	46.72
45	ATOM	675	O	ILE	A	88	-15.725	34.460	52.656	1.00	48.10
	ATOM	676	CB	ILE	A	88	-14.107	36.891	52.292	1.00	39.13
	ATOM	677	CG1	ILE	A	88	-13.328	38.146	52.696	1.00	38.40
	ATOM	678	CG2	ILE	A	88	-14.538	36.932	50.839	1.00	28.13
	ATOM	679	CD1	ILE	A	88	-11.944	38.200	52.051	1.00	30.07
50	ATOM	680	N	SER	A	89	-17.314	35.931	52.077	1.00	45.16
	ATOM	681	CA	SER	A	89	-18.181	34.893	51.559	1.00	44.76
	ATOM	682	C	SER	A	89	-17.902	34.531	50.131	1.00	46.01
	ATOM	683	O	SER	A	89	-18.048	35.347	49.243	1.00	44.34
55	ATOM	684	CB	SER	A	89	-19.657	35.121	51.827	1.00	51.87
	ATOM	685	OG	SER	A	89	-19.942	34.834	53.198	1.00	69.07
	ATOM	686	N	LEU	A	90	-17.494	33.279	49.914	1.00	46.43
	ATOM	687	CA	LEU	A	90	-17.204	32.804	48.575	1.00	46.93
	ATOM	688	C	LEU	A	90	-18.450	32.235	47.935	1.00	55.26
	ATOM	689	O	LEU	A	90	-19.210	31.476	48.556	1.00	54.94
60	ATOM	690	CB	LEU	A	90	-16.080	31.750	48.521	1.00	46.14
	ATOM	691	CG	LEU	A	90	-15.262	31.607	49.792	1.00	50.78
	ATOM	692	CD1	LEU	A	90	-14.546	30.261	49.806	1.00	50.27
	ATOM	693	CD2	LEU	A	90	-14.219	32.708	49.863	1.00	55.52
	ATOM	694	N	PRO	A	91	-18.626	32.607	46.683	1.00	54.81



	ATOM	695	CA	PRO	A	91	-19.756	32.183	45.870	1.00	58.45
	ATOM	696	C	PRO	A	91	-19.585	30.782	45.254	1.00	67.78
	ATOM	697	O	PRO	A	91	-20.500	30.250	44.623	1.00	68.64
5	ATOM	698	CB	PRO	A	91	-19.843	33.213	44.738	1.00	59.70
	ATOM	699	CG	PRO	A	91	-18.503	33.952	44.711	1.00	61.25
	ATOM	700	CD	PRO	A	91	-17.731	33.539	45.961	1.00	54.16
	ATOM	701	N	ILE	A	92	-18.413	30.177	45.416	1.00	64.82
	ATOM	702	CA	ILE	A	92	-18.210	28.863	44.850	1.00	65.03
10	ATOM	703	C	ILE	A	92	-17.485	27.948	45.801	1.00	66.34
	ATOM	704	O	ILE	A	92	-16.258	27.984	45.865	1.00	70.20
	ATOM	705	CB	ILE	A	92	-17.433	28.927	43.547	1.00	69.56
	ATOM	706	CG1	ILE	A	92	-18.298	29.495	42.430	1.00	70.02
	ATOM	707	CG2	ILE	A	92	-16.975	27.517	43.171	1.00	71.86
	ATOM	708	CD1	ILE	A	92	-17.528	29.672	41.121	1.00	80.63
15	ATOM	709	N	ALA	A	93	-18.219	27.115	46.534	1.00	54.40
	ATOM	710	CA	ALA	A	93	-17.526	26.247	47.452	1.00	51.74
	ATOM	711	C	ALA	A	93	-16.265	25.750	46.804	1.00	52.66
	ATOM	712	O	ALA	A	93	-16.288	25.319	45.662	1.00	49.87
20	ATOM	713	CB	ALA	A	93	-18.367	25.101	47.968	1.00	52.76
	ATOM	714	N	LEU	A	94	-15.162	25.861	47.544	1.00	48.18
	ATOM	715	CA	LEU	A	94	-13.862	25.425	47.067	1.00	43.27
	ATOM	716	C	LEU	A	94	-13.566	24.066	47.581	1.00	43.98
	ATOM	717	O	LEU	A	94	-14.086	23.633	48.601	1.00	44.63
25	ATOM	718	CB	LEU	A	94	-12.713	26.344	47.509	1.00	41.05
	ATOM	719	CG	LEU	A	94	-12.685	27.638	46.739	1.00	40.03
	ATOM	720	CD1	LEU	A	94	-11.272	28.200	46.751	1.00	36.88
	ATOM	721	CD2	LEU	A	94	-13.115	27.343	45.311	1.00	44.98
	ATOM	722	N	SER	A	95	-12.706	23.406	46.875	1.00	43.26
30	ATOM	723	CA	SER	A	95	-12.321	22.074	47.256	1.00	43.76
	ATOM	724	C	SER	A	95	-10.807	21.991	47.344	1.00	38.58
	ATOM	725	O	SER	A	95	-10.087	22.944	46.975	1.00	36.78
	ATOM	726	CB	SER	A	95	-12.902	21.092	46.256	1.00	51.55
	ATOM	727	OG	SER	A	95	-14.299	21.305	46.156	1.00	62.74
35	ATOM	728	N	LYS	A	96	-10.321	20.863	47.830	1.00	31.10
	ATOM	729	CA	LYS	A	96	-8.883	20.723	47.958	1.00	34.92
	ATOM	730	C	LYS	A	96	-8.058	21.238	46.777	1.00	45.63
	ATOM	731	O	LYS	A	96	-8.400	21.063	45.612	1.00	49.35
	ATOM	732	CB	LYS	A	96	-8.401	19.366	48.451	1.00	38.53
40	ATOM	733	CG	LYS	A	96	-9.189	18.871	49.651	1.00	68.97
	ATOM	734	CD	LYS	A	96	-8.691	17.549	50.221	1.00	80.86
	ATOM	735	CE	LYS	A	96	-9.596	17.011	51.330	1.00	92.53
	ATOM	736	NZ	LYS	A	96	-9.049	15.833	52.029	1.00	100.00
	ATOM	737	N	ASN	A	97	-6.944	21.873	47.108	1.00	41.92
45	ATOM	738	CA	ASN	A	97	-6.009	22.403	46.139	1.00	40.91
	ATOM	739	C	ASN	A	97	-6.606	23.348	45.088	1.00	42.64
	ATOM	740	O	ASN	A	97	-5.963	23.681	44.068	1.00	38.69
	ATOM	741	CB	ASN	A	97	-5.084	21.304	45.583	1.00	28.16
	ATOM	742	CG	ASN	A	97	-4.327	20.568	46.677	1.00	52.21
50	ATOM	743	OD1	ASN	A	97	-3.089	20.627	46.744	1.00	55.30
	ATOM	744	ND2	ASN	A	97	-5.060	19.858	47.533	1.00	53.87
	ATOM	745	N	GLN	A	98	-7.833	23.791	45.382	1.00	36.59
	ATOM	746	CA	GLN	A	98	-8.557	24.718	44.536	1.00	38.44
	ATOM	747	C	GLN	A	98	-8.288	26.181	44.951	1.00	43.30
55	ATOM	748	O	GLN	A	98	-8.248	26.526	46.138	1.00	43.40
	ATOM	749	CB	GLN	A	98	-10.064	24.395	44.575	1.00	42.26
	ATOM	750	CG	GLN	A	98	-10.553	23.538	43.385	1.00	68.24
	ATOM	751	CD	GLN	A	98	-12.008	23.778	43.010	1.00	95.57
	ATOM	752	OE1	GLN	A	98	-12.890	22.935	43.278	1.00	86.92
60	ATOM	753	NE2	GLN	A	98	-12.271	24.935	42.393	1.00	95.48
	ATOM	754	N	GLU	A	99	-8.089	27.062	43.973	1.00	39.70
	ATOM	755	CA	GLU	A	99	-7.817	28.468	44.280	1.00	40.49
	ATOM	756	C	GLU	A	99	-8.750	29.536	43.683	1.00	47.84
	ATOM	757	O	GLU	A	99	-9.330	29.394	42.606	1.00	46.85
	ATOM	758	CB	GLU	A	99	-6.361	28.866	43.951	1.00	40.24

	ATOM	759	CG	GLU	A	99	-5.608	27.861	43.080	1.00	44.16
	ATOM	760	CD	GLU	A	99	-4.120	28.119	42.990	1.00	65.64
	ATOM	761	OE1	GLU	A	99	-3.636	29.062	42.376	1.00	73.95
5	ATOM	762	OE2	GLU	A	99	-3.395	27.210	43.614	1.00	55.99
	ATOM	763	N	ILE	A	100	-8.848	30.643	44.418	1.00	43.55
	ATOM	764	CA	ILE	A	100	-9.595	31.800	44.005	1.00	43.46
	ATOM	765	C	ILE	A	100	-8.701	32.992	44.238	1.00	53.31
	ATOM	766	O	ILE	A	100	-7.725	32.927	45.004	1.00	55.16
10	ATOM	767	CB	ILE	A	100	-10.881	32.068	44.773	1.00	46.65
	ATOM	768	CG1	ILE	A	100	-10.762	31.640	46.227	1.00	50.76
	ATOM	769	CG2	ILE	A	100	-12.111	31.486	44.106	1.00	46.76
	ATOM	770	CD1	ILE	A	100	-9.959	32.620	47.087	1.00	64.36
	ATOM	771	N	VAL	A	101	-9.060	34.076	43.580	1.00	48.20
15	ATOM	772	CA	VAL	A	101	-8.382	35.329	43.760	1.00	45.63
	ATOM	773	C	VAL	A	101	-9.383	36.351	44.295	1.00	48.59
	ATOM	774	O	VAL	A	101	-10.331	36.722	43.623	1.00	51.29
	ATOM	775	CB	VAL	A	101	-7.461	35.793	42.633	1.00	45.06
	ATOM	776	CG1	VAL	A	101	-7.693	35.000	41.378	1.00	43.25
20	ATOM	777	CG2	VAL	A	101	-7.609	37.289	42.395	1.00	45.02
	ATOM	778	N	ILE	A	102	-9.182	36.738	45.546	1.00	41.15
	ATOM	779	CA	ILE	A	102	-10.023	37.690	46.238	1.00	39.43
	ATOM	780	C	ILE	A	102	-9.439	39.062	46.170	1.00	49.35
	ATOM	781	O	ILE	A	102	-8.331	39.274	46.659	1.00	53.80
25	ATOM	782	CB	ILE	A	102	-10.097	37.319	47.694	1.00	39.19
	ATOM	783	CG1	ILE	A	102	-10.180	35.800	47.809	1.00	35.28
	ATOM	784	CG2	ILE	A	102	-11.300	37.992	48.341	1.00	35.25
	ATOM	785	CD1	ILE	A	102	-10.962	35.392	49.044	1.00	47.09
	ATOM	786	N	GLU	A	103	-10.192	39.984	45.572	1.00	43.20
30	ATOM	787	CA	GLU	A	103	-9.748	41.362	45.433	1.00	39.88
	ATOM	788	C	GLU	A	103	-10.378	42.299	46.425	1.00	44.03
	ATOM	789	O	GLU	A	103	-11.580	42.558	46.385	1.00	41.34
	ATOM	790	CB	GLU	A	103	-9.950	41.930	44.047	1.00	39.11
	ATOM	791	CG	GLU	A	103	-9.017	43.112	43.863	1.00	36.18
35	ATOM	792	CD	GLU	A	103	-9.150	43.666	42.485	1.00	61.93
	ATOM	793	OE1	GLU	A	103	-10.157	44.234	42.100	1.00	69.89
	ATOM	794	OE2	GLU	A	103	-8.087	43.457	41.744	1.00	76.18
	ATOM	795	N	ILE	A	104	-9.534	42.797	47.322	1.00	42.69
	ATOM	796	CA	ILE	A	104	-9.969	43.718	48.346	1.00	40.72
40	ATOM	797	C	ILE	A	104	-9.522	45.167	48.099	1.00	46.21
	ATOM	798	O	ILE	A	104	-8.346	45.478	47.866	1.00	42.68
	ATOM	799	CB	ILE	A	104	-9.578	43.283	49.754	1.00	41.75
	ATOM	800	CG1	ILE	A	104	-10.006	41.855	50.032	1.00	39.85
	ATOM	801	CG2	ILE	A	104	-10.225	44.222	50.768	1.00	41.53
45	ATOM	802	CD1	ILE	A	104	-8.839	40.995	50.485	1.00	34.17
	ATOM	803	N	SER	A	105	-10.506	46.056	48.173	1.00	47.94
	ATOM	804	CA	SER	A	105	-10.278	47.481	48.046	1.00	48.05
	ATOM	805	C	SER	A	105	-10.184	47.977	49.482	1.00	42.39
	ATOM	806	O	SER	A	105	-11.134	47.879	50.263	1.00	39.69
50	ATOM	807	CB	SER	A	105	-11.399	48.180	47.290	1.00	53.77
	ATOM	808	OG	SER	A	105	-11.399	47.789	45.930	1.00	60.69
	ATOM	809	N	PHE	A	106	-9.020	48.445	49.857	1.00	35.07
	ATOM	810	CA	PHE	A	106	-8.844	48.890	51.223	1.00	34.98
	ATOM	811	C	PHE	A	106	-8.177	50.238	51.262	1.00	39.26
55	ATOM	812	O	PHE	A	106	-7.607	50.730	50.265	1.00	34.24
	ATOM	813	CB	PHE	A	106	-8.015	47.864	52.060	1.00	36.05
	ATOM	814	CG	PHE	A	106	-6.581	47.815	51.556	1.00	37.24
	ATOM	815	CD1	PHE	A	106	-6.251	47.073	50.422	1.00	39.71
	ATOM	816	CD2	PHE	A	106	-5.579	48.579	52.161	1.00	36.44
60	ATOM	817	CE1	PHE	A	106	-4.950	47.086	49.920	1.00	41.48
	ATOM	818	CE2	PHE	A	106	-4.273	48.609	51.672	1.00	38.19
	ATOM	819	CZ	PHE	A	106	-3.961	47.856	50.540	1.00	37.91
	ATOM	820	N	GLU	A	107	-8.284	50.794	52.453	1.00	40.64
	ATOM	821	CA	GLU	A	107	-7.711	52.064	52.848	1.00	43.81
	ATOM	822	C	GLU	A	107	-7.206	51.869	54.284	1.00	43.82

	ATOM	823	O	GLU	A	107	-7.933	51.303	55.121	1.00	38.38
	ATOM	824	CB	GLU	A	107	-8.737	53.234	52.753	1.00	46.93
	ATOM	825	CG	GLU	A	107	-8.107	54.637	52.467	1.00	67.21
5	ATOM	826	CD	GLU	A	107	-9.086	55.715	52.042	1.00	100.00
	ATOM	827	OE1	GLU	A	107	-10.208	55.504	51.599	1.00	100.00
	ATOM	828	OE2	GLU	A	107	-8.631	56.938	52.221	1.00	93.72
	ATOM	829	N	THR	A	108	-5.963	52.294	54.551	1.00	39.12
	ATOM	830	CA	THR	A	108	-5.345	52.175	55.873	1.00	39.69
10	ATOM	831	C	THR	A	108	-5.564	53.427	56.724	1.00	49.82
	ATOM	832	O	THR	A	108	-5.565	54.552	56.177	1.00	50.94
	ATOM	833	CB	THR	A	108	-3.810	52.095	55.722	1.00	40.40
	ATOM	834	OG1	THR	A	108	-3.360	53.226	54.981	1.00	32.22
	ATOM	835	CG2	THR	A	108	-3.371	50.802	55.042	1.00	46.43
15	ATOM	836	N	SER	A	109	-5.698	53.217	58.065	1.00	42.02
	ATOM	837	CA	SER	A	109	-5.848	54.294	59.038	1.00	38.13
	ATOM	838	C	SER	A	109	-4.555	55.101	59.082	1.00	38.47
	ATOM	839	O	SER	A	109	-3.460	54.583	58.921	1.00	33.60
	ATOM	840	CB	SER	A	109	-6.166	53.759	60.437	1.00	41.44
20	ATOM	841	OG	SER	A	109	-6.205	54.812	61.404	1.00	47.63
	ATOM	842	N	PRO	A	110	-4.655	56.392	59.308	1.00	41.64
	ATOM	843	CA	PRO	A	110	-3.419	57.116	59.393	1.00	40.75
	ATOM	844	C	PRO	A	110	-2.803	56.749	60.725	1.00	41.47
	ATOM	845	O	PRO	A	110	-1.676	57.080	61.009	1.00	42.30
25	ATOM	846	CB	PRO	A	110	-3.721	58.605	59.298	1.00	42.09
	ATOM	847	CG	PRO	A	110	-5.224	58.719	59.132	1.00	48.77
	ATOM	848	CD	PRO	A	110	-5.811	57.318	59.269	1.00	44.58
	ATOM	849	N	LYS	A	111	-3.578	56.017	61.518	1.00	36.35
	ATOM	850	CA	LYS	A	111	-3.167	55.535	62.819	1.00	36.74
30	ATOM	851	C	LYS	A	111	-2.669	54.083	62.720	1.00	40.19
	ATOM	852	O	LYS	A	111	-2.733	53.319	63.678	1.00	40.53
	ATOM	853	CB	LYS	A	111	-4.341	55.606	63.807	1.00	41.91
	ATOM	854	CG	LYS	A	111	-4.362	56.838	64.708	1.00	71.21
	ATOM	855	CD	LYS	A	111	-5.421	57.854	64.309	1.00	97.95
35	ATOM	856	CE	LYS	A	111	-6.839	57.394	64.611	1.00	100.00
	ATOM	857	NZ	LYS	A	111	-7.853	58.120	63.819	1.00	100.00
	ATOM	858	N	SER	A	112	-2.184	53.670	61.550	1.00	36.84
	ATOM	859	CA	SER	A	112	-1.714	52.296	61.358	1.00	34.35
	ATOM	860	C	SER	A	112	-0.518	51.917	62.225	1.00	35.57
40	ATOM	861	O	SER	A	112	0.533	52.548	62.166	1.00	32.49
	ATOM	862	CB	SER	A	112	-1.449	51.995	59.883	1.00	35.16
	ATOM	863	OG	SER	A	112	-0.682	50.814	59.762	1.00	31.94
	ATOM	864	N	SER	A	113	-0.666	50.872	63.033	1.00	31.84
	ATOM	865	CA	SER	A	113	0.445	50.460	63.866	1.00	29.27
45	ATOM	866	C	SER	A	113	1.601	49.927	63.040	1.00	33.37
	ATOM	867	O	SER	A	113	2.715	49.792	63.497	1.00	32.95
	ATOM	868	CB	SER	A	113	0.052	49.498	64.945	1.00	29.45
	ATOM	869	OG	SER	A	113	0.045	48.169	64.462	1.00	34.27
	ATOM	870	N	ALA	A	114	1.357	49.628	61.797	1.00	33.69
50	ATOM	871	CA	ALA	A	114	2.437	49.134	60.981	1.00	34.05
	ATOM	872	C	ALA	A	114	3.239	50.287	60.388	1.00	37.83
	ATOM	873	O	ALA	A	114	4.411	50.149	60.033	1.00	37.72
	ATOM	874	CB	ALA	A	114	1.845	48.292	59.852	1.00	34.51
	ATOM	875	N	LEU	A	115	2.580	51.432	60.259	1.00	32.19
55	ATOM	876	CA	LEU	A	115	3.201	52.595	59.662	1.00	30.48
	ATOM	877	C	LEU	A	115	3.509	53.745	60.565	1.00	35.32
	ATOM	878	O	LEU	A	115	2.902	54.012	61.604	1.00	35.25
	ATOM	879	CB	LEU	A	115	2.358	53.156	58.507	1.00	30.53
	ATOM	880	CG	LEU	A	115	1.787	52.064	57.602	1.00	35.51
60	ATOM	881	CD1	LEU	A	115	0.812	52.710	56.637	1.00	35.12
	ATOM	882	CD2	LEU	A	115	2.903	51.387	56.821	1.00	33.88
	ATOM	883	N	GLN	A	116	4.490	54.457	60.096	1.00	34.00
	ATOM	884	CA	GLN	A	116	4.926	55.656	60.737	1.00	32.52
	ATOM	885	C	GLN	A	116	5.066	56.689	59.645	1.00	31.34
	ATOM	886	O	GLN	A	116	5.880	56.552	58.729	1.00	28.29

	ATOM	887	CB	GLN	A	116	6.232	55.540	61.496	1.00	32.66
	ATOM	888	CG	GLN	A	116	6.419	56.813	62.322	1.00	41.25
	ATOM	889	CD	GLN	A	116	7.777	56.897	62.952	1.00	50.08
5	ATOM	890	OE1	GLN	A	116	8.515	55.905	63.017	1.00	55.36
	ATOM	891	NE2	GLN	A	116	8.090	58.081	63.438	1.00	38.23
	ATOM	892	N	TRP	A	117	4.210	57.680	59.748	1.00	26.66
	ATOM	893	CA	TRP	A	117	4.148	58.785	58.827	1.00	26.04
	ATOM	894	C	TRP	A	117	4.912	59.978	59.375	1.00	34.56
	ATOM	895	O	TRP	A	117	4.467	60.589	60.364	1.00	36.83
10	ATOM	896	CB	TRP	A	117	2.669	59.188	58.630	1.00	23.15
	ATOM	897	CG	TRP	A	117	1.826	58.209	57.863	1.00	23.02
	ATOM	898	CD1	TRP	A	117	1.052	57.224	58.397	1.00	26.39
	ATOM	899	CD2	TRP	A	117	1.640	58.135	56.433	1.00	21.06
15	ATOM	900	NE1	TRP	A	117	0.395	56.534	57.393	1.00	26.40
	ATOM	901	CE2	TRP	A	117	0.735	57.087	56.184	1.00	27.99
	ATOM	902	CE3	TRP	A	117	2.121	58.872	55.361	1.00	20.95
	ATOM	903	CZ2	TRP	A	117	0.352	56.753	54.886	1.00	28.21
	ATOM	904	CZ3	TRP	A	117	1.750	58.560	54.079	1.00	22.43
	ATOM	905	CH2	TRP	A	117	0.872	57.512	53.847	1.00	24.28
20	ATOM	906	N	LEU	A	118	6.043	60.340	58.756	1.00	31.44
	ATOM	907	CA	LEU	A	118	6.745	61.506	59.276	1.00	36.67
	ATOM	908	C	LEU	A	118	6.584	62.774	58.432	1.00	46.93
	ATOM	909	O	LEU	A	118	6.434	62.705	57.210	1.00	51.17
25	ATOM	910	CB	LEU	A	118	8.250	61.327	59.577	1.00	38.83
	ATOM	911	CG	LEU	A	118	8.881	59.939	59.398	1.00	44.33
	ATOM	912	CD1	LEU	A	118	10.392	60.065	59.569	1.00	42.12
	ATOM	913	CD2	LEU	A	118	8.351	58.950	60.426	1.00	49.99
	ATOM	914	N	THR	A	119	6.524	63.939	59.109	1.00	41.34
30	ATOM	915	CA	THR	A	119	6.449	65.260	58.468	1.00	38.89
	ATOM	916	C	THR	A	119	7.847	65.633	58.034	1.00	40.14
	ATOM	917	O	THR	A	119	8.841	65.165	58.605	1.00	44.03
	ATOM	918	CB	THR	A	119	5.932	66.300	59.467	1.00	42.63
	ATOM	919	OG1	THR	A	119	6.994	66.605	60.362	1.00	50.01
35	ATOM	920	CG2	THR	A	119	4.769	65.668	60.224	1.00	36.78
	ATOM	921	N	PRO	A	120	7.963	66.440	57.020	1.00	33.41
	ATOM	922	CA	PRO	A	120	9.275	66.781	56.517	1.00	33.18
	ATOM	923	C	PRO	A	120	10.260	67.209	57.599	1.00	38.27
	ATOM	924	O	PRO	A	120	11.433	66.829	57.566	1.00	34.42
40	ATOM	925	CB	PRO	A	120	9.068	67.840	55.416	1.00	33.54
	ATOM	926	CG	PRO	A	120	7.582	67.823	55.097	1.00	34.86
	ATOM	927	CD	PRO	A	120	6.891	67.180	56.300	1.00	30.86
	ATOM	928	N	GLU	A	121	9.751	67.982	58.563	1.00	38.03
	ATOM	929	CA	GLU	A	121	10.534	68.474	59.681	1.00	41.03
45	ATOM	930	C	GLU	A	121	11.212	67.361	60.411	1.00	50.88
	ATOM	931	O	GLU	A	121	12.279	67.548	60.977	1.00	54.97
	ATOM	932	CB	GLU	A	121	9.742	69.325	60.699	1.00	43.28
	ATOM	933	CG	GLU	A	121	8.220	69.071	60.702	1.00	64.72
	ATOM	934	CD	GLU	A	121	7.398	70.118	59.988	1.00	86.07
50	ATOM	935	OE1	GLU	A	121	7.007	71.131	60.538	1.00	100.00
	ATOM	936	OE2	GLU	A	121	7.108	69.803	58.739	1.00	59.72
	ATOM	937	N	GLN	A	122	10.569	66.202	60.394	1.00	44.09
	ATOM	938	CA	GLN	A	122	11.083	65.019	61.041	1.00	40.20
	ATOM	939	C	GLN	A	122	12.170	64.373	60.232	1.00	47.73
55	ATOM	940	O	GLN	A	122	12.711	63.343	60.643	1.00	53.29
	ATOM	941	CB	GLN	A	122	9.965	63.992	61.224	1.00	39.31
	ATOM	942	CG	GLN	A	122	9.057	64.441	62.361	1.00	30.23
	ATOM	943	CD	GLN	A	122	7.756	63.691	62.438	1.00	38.25
	ATOM	944	OE1	GLN	A	122	6.899	63.804	61.548	1.00	53.34
60	ATOM	945	NE2	GLN	A	122	7.592	62.938	63.521	1.00	18.98
	ATOM	946	N	THR	A	123	12.486	64.942	59.074	1.00	38.99
	ATOM	947	CA	THR	A	123	13.490	64.319	58.229	1.00	36.00
	ATOM	948	C	THR	A	123	14.755	65.034	58.264	1.00	35.30
	ATOM	949	O	THR	A	123	14.842	66.074	58.875	1.00	34.95
	ATOM	950	CB	THR	A	123	13.067	64.145	56.759	1.00	38.25

	ATOM	951	OG1	THR	A	123	13.144	65.374	56.046	1.00	43.75
	ATOM	952	CG2	THR	A	123	11.643	63.616	56.725	1.00	40.72
	ATOM	953	N	SER	A	124	15.699	64.447	57.557	1.00	32.18
5	ATOM	954	CA	SER	A	124	17.025	64.996	57.442	1.00	33.71
	ATOM	955	C	SER	A	124	17.007	66.216	56.553	1.00	39.04
	ATOM	956	O	SER	A	124	17.537	67.268	56.883	1.00	39.07
	ATOM	957	CB	SER	A	124	18.023	63.992	56.859	1.00	37.73
	ATOM	958	OG	SER	A	124	18.359	62.978	57.796	1.00	36.28
10	ATOM	959	N	GLY	A	125	16.389	66.025	55.414	1.00	38.59
	ATOM	960	CA	GLY	A	125	16.280	67.034	54.396	1.00	39.90
	ATOM	961	C	GLY	A	125	15.290	68.094	54.749	1.00	46.83
	ATOM	962	O	GLY	A	125	15.347	69.171	54.172	1.00	49.78
	ATOM	963	N	LYS	A	126	14.391	67.788	55.678	1.00	41.09
15	ATOM	964	CA	LYS	A	126	13.396	68.761	56.126	1.00	41.26
	ATOM	965	C	LYS	A	126	12.498	69.307	55.020	1.00	47.42
	ATOM	966	O	LYS	A	126	11.617	70.141	55.279	1.00	48.94
	ATOM	967	CB	LYS	A	126	14.024	69.936	56.894	1.00	41.98
	ATOM	968	CG	LYS	A	126	15.094	69.555	57.913	1.00	45.84
20	ATOM	969	CD	LYS	A	126	14.535	68.838	59.135	1.00	58.74
	ATOM	970	CE	LYS	A	126	15.612	68.500	60.151	1.00	72.12
	ATOM	971	NZ	LYS	A	126	15.395	67.218	60.839	1.00	88.38
	ATOM	972	N	GLU	A	127	12.722	68.858	53.792	1.00	41.82
	ATOM	973	CA	GLU	A	127	11.921	69.344	52.708	1.00	41.98
25	ATOM	974	C	GLU	A	127	10.899	68.334	52.239	1.00	45.14
	ATOM	975	O	GLU	A	127	9.994	68.683	51.496	1.00	46.95
	ATOM	976	CB	GLU	A	127	12.727	70.015	51.543	1.00	44.39
	ATOM	977	CG	GLU	A	127	13.198	71.499	51.820	1.00	57.99
	ATOM	978	CD	GLU	A	127	12.331	72.659	51.301	1.00	100.00
30	ATOM	979	OE1	GLU	A	127	11.652	72.611	50.286	1.00	100.00
	ATOM	980	OE2	GLU	A	127	12.387	73.758	52.054	1.00	100.00
	ATOM	981	N	HIS	A	128	11.027	67.077	52.653	1.00	39.18
	ATOM	982	CA	HIS	A	128	10.068	66.072	52.210	1.00	39.43
	ATOM	983	C	HIS	A	128	9.636	65.148	53.316	1.00	42.09
35	ATOM	984	O	HIS	A	128	10.366	64.955	54.281	1.00	45.34
	ATOM	985	CB	HIS	A	128	10.628	65.194	51.097	1.00	42.16
	ATOM	986	CG	HIS	A	128	10.947	65.936	49.854	1.00	47.24
	ATOM	987	ND1	HIS	A	128	9.943	66.423	49.029	1.00	49.12
	ATOM	988	CD2	HIS	A	128	12.159	66.262	49.322	1.00	51.13
40	ATOM	989	CE1	HIS	A	128	10.559	67.031	48.026	1.00	49.97
	ATOM	990	NE2	HIS	A	128	11.888	66.953	48.166	1.00	50.87
	ATOM	991	N	PRO	A	129	8.447	64.572	53.171	1.00	32.55
	ATOM	992	CA	PRO	A	129	7.968	63.650	54.163	1.00	31.15
	ATOM	993	C	PRO	A	129	8.636	62.328	53.900	1.00	34.90
45	ATOM	994	O	PRO	A	129	9.481	62.214	53.021	1.00	35.46
	ATOM	995	CB	PRO	A	129	6.466	63.490	53.986	1.00	31.94
	ATOM	996	CG	PRO	A	129	6.133	64.104	52.649	1.00	36.83
	ATOM	997	CD	PRO	A	129	7.384	64.850	52.185	1.00	32.71
	ATOM	998	N	TYR	A	130	8.248	61.342	54.659	1.00	29.47
50	ATOM	999	CA	TYR	A	130	8.826	60.025	54.548	1.00	29.35
	ATOM	1000	C	TYR	A	130	7.856	59.046	55.156	1.00	31.83
	ATOM	1001	O	TYR	A	130	7.138	59.375	56.093	1.00	29.84
	ATOM	1002	CB	TYR	A	130	10.098	60.029	55.433	1.00	30.54
	ATOM	1003	CG	TYR	A	130	11.083	58.886	55.285	1.00	29.76
55	ATOM	1004	CD1	TYR	A	130	10.845	57.630	55.845	1.00	26.16
	ATOM	1005	CD2	TYR	A	130	12.290	59.110	54.619	1.00	30.28
	ATOM	1006	CE1	TYR	A	130	11.795	56.621	55.721	1.00	17.87
	ATOM	1007	CE2	TYR	A	130	13.253	58.114	54.479	1.00	27.75
	ATOM	1008	CZ	TYR	A	130	12.983	56.866	55.031	1.00	25.76
60	ATOM	1009	OH	TYR	A	130	13.899	55.864	54.894	1.00	40.52
	ATOM	1010	N	LEU	A	131	7.832	57.842	54.647	1.00	31.12
	ATOM	1011	CA	LEU	A	131	6.994	56.868	55.303	1.00	30.43
	ATOM	1012	C	LEU	A	131	7.691	55.568	55.289	1.00	33.91
	ATOM	1013	O	LEU	A	131	8.398	55.257	54.397	1.00	33.68
	ATOM	1014	CB	LEU	A	131	5.679	56.761	54.530	1.00	26.16

	ATOM	1015	CG	LEU A 131	5.065	55.367	54.600	1.00	21.68
	ATOM	1016	CD1	LEU A 131	4.163	55.206	55.797	1.00	17.56
	ATOM	1017	CD2	LEU A 131	4.222	55.008	53.380	1.00	13.86
5	ATOM	1018	N	PHE A 132	7.533	54.828	56.348	1.00	29.24
	ATOM	1019	CA	PHE A 132	8.129	53.527	56.323	1.00	33.44
	ATOM	1020	C	PHE A 132	7.299	52.519	57.157	1.00	41.08
	ATOM	1021	O	PHE A 132	6.344	52.889	57.837	1.00	46.05
	ATOM	1022	CB	PHE A 132	9.621	53.670	56.791	1.00	36.40
10	ATOM	1023	CG	PHE A 132	9.763	53.895	58.256	1.00	38.11
	ATOM	1024	CD1	PHE A 132	9.601	52.821	59.053	1.00	37.18
	ATOM	1025	CD2	PHE A 132	10.123	55.158	58.803	1.00	43.89
	ATOM	1026	CE1	PHE A 132	9.771	52.936	60.422	1.00	41.04
	ATOM	1027	CE2	PHE A 132	10.289	55.258	60.174	1.00	47.72
	ATOM	1028	CZ	PHE A 132	10.131	54.143	60.986	1.00	44.34
15	ATOM	1029	N	SER A 133	7.612	51.221	57.002	1.00	33.47
	ATOM	1030	CA	SER A 133	6.744	50.228	57.629	1.00	29.86
	ATOM	1031	C	SER A 133	7.499	49.221	58.504	1.00	31.53
	ATOM	1032	O	SER A 133	8.724	49.146	58.531	1.00	33.16
20	ATOM	1033	CB	SER A 133	5.942	49.481	56.535	1.00	33.19
	ATOM	1034	OG	SER A 133	6.757	48.480	55.926	1.00	50.66
	ATOM	1035	N	GLN A 134	6.703	48.466	59.294	1.00	24.61
	ATOM	1036	CA	GLN A 134	7.283	47.422	60.134	1.00	22.55
	ATOM	1037	C	GLN A 134	6.268	46.321	60.398	1.00	27.28
25	ATOM	1038	O	GLN A 134	5.161	46.566	60.809	1.00	25.09
	ATOM	1039	CB	GLN A 134	7.711	48.041	61.464	1.00	23.29
	ATOM	1040	CG	GLN A 134	8.218	46.987	62.454	1.00	25.96
	ATOM	1041	CD	GLN A 134	9.423	46.290	61.872	1.00	25.65
	ATOM	1042	OE1	GLN A 134	10.296	46.876	61.263	1.00	26.36
30	ATOM	1043	NE2	GLN A 134	9.445	44.965	62.095	1.00	21.75
	ATOM	1044	N	CYS A 135	6.435	45.124	59.820	1.00	29.60
	ATOM	1045	CA	CYS A 135	5.291	44.220	59.755	1.00	32.30
	ATOM	1046	C	CYS A 135	5.442	43.006	60.662	1.00	39.58
	ATOM	1047	O	CYS A 135	4.597	42.144	60.739	1.00	40.94
35	ATOM	1048	CB	CYS A 135	5.098	43.794	58.320	1.00	35.40
	ATOM	1049	SG	CYS A 135	3.976	44.922	57.445	1.00	41.22
	ATOM	1050	N	GLN A 136	6.582	42.949	61.345	1.00	37.37
	ATOM	1051	CA	GLN A 136	6.715	41.982	62.417	1.00	35.71
	ATOM	1052	C	GLN A 136	6.589	42.645	63.797	1.00	31.90
40	ATOM	1053	O	GLN A 136	6.878	43.803	63.981	1.00	30.54
	ATOM	1054	CB	GLN A 136	8.077	41.311	62.295	1.00	37.24
	ATOM	1055	CG	GLN A 136	8.076	39.878	62.847	1.00	29.70
	ATOM	1056	CD	GLN A 136	9.483	39.511	63.235	1.00	36.48
	ATOM	1057	OE1	GLN A 136	10.366	40.328	63.356	1.00	24.49
45	ATOM	1058	NE2	GLN A 136	9.665	38.201	63.443	1.00	22.19
	ATOM	1059	N	ALA A 137	5.850	41.899	64.648	1.00	28.56
	ATOM	1060	CA	ALA A 137	5.235	40.581	64.351	1.00	28.89
	ATOM	1061	C	ALA A 137	3.860	40.503	63.630	1.00	31.83
	ATOM	1062	O	ALA A 137	3.679	39.688	62.738	1.00	29.67
50	ATOM	1063	CB	ALA A 137	5.091	39.742	65.625	1.00	28.91
	ATOM	1064	N	ILE A 138	2.863	41.285	64.070	1.00	27.07
	ATOM	1065	CA	ILE A 138	1.553	41.176	63.445	1.00	23.90
	ATOM	1066	C	ILE A 138	0.960	42.492	63.053	1.00	28.69
	ATOM	1067	O	ILE A 138	-0.144	42.822	63.426	1.00	31.92
55	ATOM	1068	CB	ILE A 138	0.641	40.357	64.339	1.00	25.41
	ATOM	1069	CG1	ILE A 138	0.871	40.811	65.801	1.00	27.32
	ATOM	1070	CG2	ILE A 138	1.162	38.938	64.191	1.00	16.34
	ATOM	1071	CD1	ILE A 138	-0.275	40.615	66.826	1.00	20.22
	ATOM	1072	N	HIS A 139	1.718	43.223	62.265	1.00	24.05
60	ATOM	1073	CA	HIS A 139	1.322	44.511	61.824	1.00	24.05
	ATOM	1074	C	HIS A 139	0.982	44.579	60.351	1.00	34.40
	ATOM	1075	O	HIS A 139	0.539	45.625	59.888	1.00	35.89
	ATOM	1076	CB	HIS A 139	2.439	45.519	62.173	1.00	24.63
	ATOM	1077	CG	HIS A 139	2.689	45.619	63.657	1.00	27.97
	ATOM	1078	ND1	HIS A 139	1.679	45.970	64.571	1.00	27.75

	ATOM	1079	CD2	HIS	A	139	3.835	45.437	64.356	1.00	28.42
	ATOM	1080	CE1	HIS	A	139	2.222	45.983	65.770	1.00	26.19
	ATOM	1081	NE2	HIS	A	139	3.517	45.668	65.671	1.00	27.42
5	ATOM	1082	N	CYS	A	140	1.181	43.490	59.598	1.00	30.28
	ATOM	1083	CA	CYS	A	140	0.832	43.517	58.181	1.00	28.08
	ATOM	1084	C	CYS	A	140	-0.671	43.765	58.011	1.00	28.98
	ATOM	1085	O	CYS	A	140	-1.111	44.449	57.066	1.00	30.00
	ATOM	1086	CB	CYS	A	140	1.181	42.213	57.447	1.00	28.82
10	ATOM	1087	SG	CYS	A	140	1.330	42.483	55.661	1.00	34.37
	ATOM	1088	N	ARG	A	141	-1.440	43.168	58.949	1.00	20.78
	ATOM	1089	CA	ARG	A	141	-2.884	43.252	58.996	1.00	20.33
	ATOM	1090	C	ARG	A	141	-3.286	44.684	59.003	1.00	32.37
	ATOM	1091	O	ARG	A	141	-4.355	45.032	58.510	1.00	35.81
15	ATOM	1092	CB	ARG	A	141	-3.557	42.498	60.156	1.00	14.60
	ATOM	1093	CG	ARG	A	141	-3.081	42.891	61.568	1.00	20.94
	ATOM	1094	CD	ARG	A	141	-3.576	41.978	62.715	1.00	19.99
	ATOM	1095	NE	ARG	A	141	-2.911	40.690	62.786	1.00	18.24
	ATOM	1096	CZ	ARG	A	141	-3.140	39.707	63.648	1.00	18.77
20	ATOM	1097	NH1	ARG	A	141	-4.029	39.739	64.634	1.00	20.76
	ATOM	1098	NH2	ARG	A	141	-2.415	38.640	63.508	1.00	24.20
	ATOM	1099	N	ALA	A	142	-2.408	45.511	59.580	1.00	28.35
	ATOM	1100	CA	ALA	A	142	-2.668	46.940	59.657	1.00	27.60
	ATOM	1101	C	ALA	A	142	-2.369	47.652	58.345	1.00	34.33
25	ATOM	1102	O	ALA	A	142	-2.620	48.835	58.203	1.00	34.36
	ATOM	1103	CB	ALA	A	142	-1.994	47.616	60.843	1.00	27.67
	ATOM	1104	N	ILE	A	143	-1.824	46.922	57.382	1.00	32.39
	ATOM	1105	CA	ILE	A	143	-1.537	47.499	56.099	1.00	30.38
	ATOM	1106	C	ILE	A	143	-2.520	46.994	55.067	1.00	37.79
30	ATOM	1107	O	ILE	A	143	-2.885	47.709	54.152	1.00	42.65
	ATOM	1108	CB	ILE	A	143	-0.142	47.228	55.613	1.00	32.06
	ATOM	1109	CG1	ILE	A	143	0.827	48.062	56.414	1.00	31.71
	ATOM	1110	CG2	ILE	A	143	-0.074	47.654	54.143	1.00	34.02
	ATOM	1111	CD1	ILE	A	143	2.258	47.774	55.988	1.00	42.10
35	ATOM	1112	N	LEU	A	144	-2.939	45.749	55.218	1.00	32.50
	ATOM	1113	CA	LEU	A	144	-3.873	45.142	54.291	1.00	32.36
	ATOM	1114	C	LEU	A	144	-4.435	43.838	54.849	1.00	40.36
	ATOM	1115	O	LEU	A	144	-3.959	43.278	55.852	1.00	33.27
	ATOM	1116	CB	LEU	A	144	-3.250	44.936	52.894	1.00	31.58
40	ATOM	1117	CG	LEU	A	144	-1.923	44.170	52.917	1.00	33.31
	ATOM	1118	CD1	LEU	A	144	-2.147	42.770	52.352	1.00	32.07
	ATOM	1119	CD2	LEU	A	144	-0.836	44.897	52.110	1.00	28.67
	ATOM	1120	N	PRO	A	145	-5.490	43.347	54.213	1.00	40.02
	ATOM	1121	CA	PRO	A	145	-6.080	42.129	54.715	1.00	37.86
45	ATOM	1122	C	PRO	A	145	-5.264	40.941	54.286	1.00	37.87
	ATOM	1123	O	PRO	A	145	-4.819	40.831	53.144	1.00	35.27
	ATOM	1124	CB	PRO	A	145	-7.530	42.080	54.220	1.00	38.81
	ATOM	1125	CG	PRO	A	145	-7.778	43.393	53.492	1.00	41.34
	ATOM	1126	CD	PRO	A	145	-6.432	44.093	53.341	1.00	36.69
50	ATOM	1127	N	CYS	A	146	-5.041	40.056	55.233	1.00	36.18
	ATOM	1128	CA	CYS	A	146	-4.250	38.882	54.958	1.00	35.60
	ATOM	1129	C	CYS	A	146	-4.358	37.859	56.069	1.00	33.04
	ATOM	1130	O	CYS	A	146	-5.067	38.062	57.050	1.00	30.78
	ATOM	1131	CB	CYS	A	146	-2.761	39.287	54.813	1.00	36.08
55	ATOM	1132	SG	CYS	A	146	-2.087	40.108	56.302	1.00	39.43
	ATOM	1133	N	GLN	A	147	-3.637	36.755	55.883	1.00	29.33
	ATOM	1134	CA	GLN	A	147	-3.517	35.703	56.875	1.00	29.71
	ATOM	1135	C	GLN	A	147	-2.254	36.131	57.628	1.00	38.75
	ATOM	1136	O	GLN	A	147	-1.141	35.926	57.135	1.00	40.79
60	ATOM	1137	CB	GLN	A	147	-3.322	34.352	56.206	1.00	28.99
	ATOM	1138	CG	GLN	A	147	-4.672	33.707	55.894	1.00	25.73
	ATOM	1139	CD	GLN	A	147	-4.562	32.532	54.960	1.00	39.92
	ATOM	1140	OE1	GLN	A	147	-4.217	32.668	53.775	1.00	43.89
	ATOM	1141	NE2	GLN	A	147	-4.828	31.368	55.499	1.00	26.36
	ATOM	1142	N	ASP	A	148	-2.425	36.834	58.765	1.00	32.68

	ATOM	1143	CA	ASP	A	148	-1.287	37.362	59.474	1.00	33.50
	ATOM	1144	C	ASP	A	148	-0.629	36.377	60.371	1.00	33.13
	ATOM	1145	O	ASP	A	148	-0.622	36.563	61.584	1.00	31.30
5	ATOM	1146	CB	ASP	A	148	-1.633	38.642	60.253	1.00	37.78
	ATOM	1147	CG	ASP	A	148	-0.535	39.666	60.332	1.00	45.10
	ATOM	1148	OD1	ASP	A	148	0.564	39.540	59.836	1.00	47.89
	ATOM	1149	OD2	ASP	A	148	-0.913	40.737	60.952	1.00	48.63
	ATOM	1150	N	THR	A	149	-0.080	35.345	59.742	1.00	29.15
10	ATOM	1151	CA	THR	A	149	0.584	34.251	60.422	1.00	28.25
	ATOM	1152	C	THR	A	149	1.805	33.831	59.625	1.00	34.92
	ATOM	1153	O	THR	A	149	1.757	33.764	58.410	1.00	34.47
	ATOM	1154	CB	THR	A	149	-0.403	33.087	60.674	1.00	24.79
	ATOM	1155	OG1	THR	A	149	0.241	32.059	61.352	1.00	37.15
	ATOM	1156	CG2	THR	A	149	-0.905	32.527	59.345	1.00	26.56
15	ATOM	1157	N	PRO	A	150	2.910	33.575	60.323	1.00	34.69
	ATOM	1158	CA	PRO	A	150	4.142	33.217	59.659	1.00	31.06
	ATOM	1159	C	PRO	A	150	4.087	31.813	59.131	1.00	36.66
	ATOM	1160	O	PRO	A	150	4.995	31.356	58.450	1.00	36.37
20	ATOM	1161	CB	PRO	A	150	5.245	33.327	60.712	1.00	31.18
	ATOM	1162	CG	PRO	A	150	4.570	33.471	62.077	1.00	36.95
	ATOM	1163	CD	PRO	A	150	3.078	33.589	61.823	1.00	34.62
	ATOM	1164	N	SER	A	151	2.992	31.150	59.452	1.00	31.62
	ATOM	1165	CA	SER	A	151	2.778	29.791	59.029	1.00	27.35
25	ATOM	1166	C	SER	A	151	2.357	29.738	57.564	1.00	32.97
	ATOM	1167	O	SER	A	151	2.344	28.703	56.928	1.00	34.25
	ATOM	1168	CB	SER	A	151	1.714	29.203	59.905	1.00	25.95
	ATOM	1169	OG	SER	A	151	0.483	29.685	59.439	1.00	49.35
	ATOM	1170	N	VAL	A	152	1.997	30.887	57.024	1.00	34.36
30	ATOM	1171	CA	VAL	A	152	1.595	31.015	55.623	1.00	33.74
	ATOM	1172	C	VAL	A	152	2.705	31.764	54.847	1.00	37.45
	ATOM	1173	O	VAL	A	152	3.295	32.761	55.313	1.00	37.63
	ATOM	1174	CB	VAL	A	152	0.203	31.697	55.427	1.00	32.61
	ATOM	1175	CG1	VAL	A	152	-0.184	31.767	53.963	1.00	31.50
	ATOM	1176	CG2	VAL	A	152	-0.915	30.975	56.149	1.00	31.29
35	ATOM	1177	N	LYS	A	153	2.999	31.289	53.654	1.00	26.98
	ATOM	1178	CA	LYS	A	153	4.002	31.927	52.866	1.00	25.81
	ATOM	1179	C	LYS	A	153	3.469	32.141	51.473	1.00	33.94
	ATOM	1180	O	LYS	A	153	2.826	31.251	50.936	1.00	32.91
40	ATOM	1181	CB	LYS	A	153	5.252	31.091	52.841	1.00	24.70
	ATOM	1182	CG	LYS	A	153	6.383	31.760	53.583	1.00	34.68
	ATOM	1183	CD	LYS	A	153	7.641	30.893	53.616	1.00	39.37
	ATOM	1184	CE	LYS	A	153	8.121	30.506	55.015	1.00	29.09
	ATOM	1185	NZ	LYS	A	153	9.556	30.152	55.112	1.00	26.03
45	ATOM	1186	N	LEU	A	154	3.732	33.321	50.896	1.00	32.13
	ATOM	1187	CA	LEU	A	154	3.285	33.639	49.544	1.00	30.67
	ATOM	1188	C	LEU	A	154	4.279	34.475	48.789	1.00	40.67
	ATOM	1189	O	LEU	A	154	5.264	35.000	49.344	1.00	42.56
	ATOM	1190	CB	LEU	A	154	1.966	34.432	49.515	1.00	30.10
50	ATOM	1191	CG	LEU	A	154	2.084	35.793	50.207	1.00	35.20
	ATOM	1192	CD1	LEU	A	154	0.989	36.716	49.690	1.00	37.21
	ATOM	1193	CD2	LEU	A	154	1.934	35.608	51.715	1.00	33.07
	ATOM	1194	N	THR	A	155	3.963	34.610	47.499	1.00	37.82
	ATOM	1195	CA	THR	A	155	4.728	35.449	46.596	1.00	38.44
55	ATOM	1196	C	THR	A	155	3.934	36.730	46.389	1.00	41.52
	ATOM	1197	O	THR	A	155	2.738	36.775	46.674	1.00	43.95
	ATOM	1198	CB	THR	A	155	5.041	34.814	45.230	1.00	36.99
	ATOM	1199	OG1	THR	A	155	3.886	34.281	44.584	1.00	32.59
	ATOM	1200	CG2	THR	A	155	6.133	33.790	45.404	1.00	18.24
60	ATOM	1201	N	TYR	A	156	4.563	37.768	45.892	1.00	33.87
	ATOM	1202	CA	TYR	A	156	3.835	39.003	45.683	1.00	32.49
	ATOM	1203	C	TYR	A	156	4.509	39.922	44.717	1.00	37.91
	ATOM	1204	O	TYR	A	156	5.725	39.940	44.562	1.00	39.04
	ATOM	1205	CB	TYR	A	156	3.534	39.795	46.983	1.00	31.16
	ATOM	1206	CG	TYR	A	156	4.642	40.731	47.471	1.00	28.94



	ATOM	1207	CD1	TYR	A	156	4.817	42.021	46.969	1.00	30.33
	ATOM	1208	CD2	TYR	A	156	5.525	40.303	48.465	1.00	30.43
	ATOM	1209	CE1	TYR	A	156	5.829	42.853	47.459	1.00	36.89
5	ATOM	1210	CE2	TYR	A	156	6.553	41.104	48.960	1.00	31.47
	ATOM	1211	CZ	TYR	A	156	6.690	42.396	48.462	1.00	43.34
	ATOM	1212	OH	TYR	A	156	7.701	43.180	48.956	1.00	36.86
	ATOM	1213	N	THR	A	157	3.657	40.689	44.101	1.00	36.75
	ATOM	1214	CA	THR	A	157	4.036	41.691	43.171	1.00	38.49
10	ATOM	1215	C	THR	A	157	3.346	42.942	43.611	1.00	42.61
	ATOM	1216	O	THR	A	157	2.228	42.913	44.143	1.00	38.45
	ATOM	1217	CB	THR	A	157	3.631	41.316	41.751	1.00	39.73
	ATOM	1218	OG1	THR	A	157	2.380	40.655	41.803	1.00	55.71
	ATOM	1219	CG2	THR	A	157	4.680	40.370	41.212	1.00	26.71
15	ATOM	1220	N	ALA	A	158	4.037	44.025	43.404	1.00	41.36
	ATOM	1221	CA	ALA	A	158	3.488	45.273	43.789	1.00	41.08
	ATOM	1222	C	ALA	A	158	3.869	46.401	42.839	1.00	50.77
	ATOM	1223	O	ALA	A	158	4.919	46.390	42.179	1.00	53.47
	ATOM	1224	CB	ALA	A	158	3.910	45.570	45.212	1.00	39.87
20	ATOM	1225	N	GLU	A	159	2.974	47.376	42.788	1.00	43.90
	ATOM	1226	CA	GLU	A	159	3.107	48.604	42.023	1.00	42.27
	ATOM	1227	C	GLU	A	159	2.451	49.705	42.843	1.00	42.17
	ATOM	1228	O	GLU	A	159	1.257	49.630	43.227	1.00	41.00
	ATOM	1229	CB	GLU	A	159	2.641	48.521	40.571	1.00	43.72
25	ATOM	1230	CG	GLU	A	159	1.943	47.197	40.255	1.00	62.90
	ATOM	1231	CD	GLU	A	159	1.502	47.156	38.835	1.00	91.28
	ATOM	1232	OE1	GLU	A	159	2.202	46.696	37.955	1.00	77.84
	ATOM	1233	OE2	GLU	A	159	0.322	47.707	38.644	1.00	100.00
	ATOM	1234	N	VAL	A	160	3.263	50.686	43.197	1.00	34.67
30	ATOM	1235	CA	VAL	A	160	2.738	51.717	44.044	1.00	36.57
	ATOM	1236	C	VAL	A	160	3.024	53.091	43.533	1.00	43.02
	ATOM	1237	O	VAL	A	160	4.121	53.380	43.050	1.00	42.71
	ATOM	1238	CB	VAL	A	160	3.180	51.530	45.500	1.00	40.73
	ATOM	1239	CG1	VAL	A	160	3.988	50.239	45.644	1.00	38.56
35	ATOM	1240	CG2	VAL	A	160	4.006	52.728	45.963	1.00	40.46
	ATOM	1241	N	SER	A	161	2.002	53.922	43.653	1.00	41.79
	ATOM	1242	CA	SER	A	161	2.076	55.292	43.185	1.00	42.07
	ATOM	1243	C	SER	A	161	2.532	56.204	44.270	1.00	44.28
	ATOM	1244	O	SER	A	161	2.047	56.121	45.403	1.00	43.60
40	ATOM	1245	CB	SER	A	161	0.751	55.801	42.635	1.00	43.32
	ATOM	1246	OG	SER	A	161	0.971	56.850	41.726	1.00	49.40
	ATOM	1247	N	VAL	A	162	3.447	57.080	43.896	1.00	36.49
	ATOM	1248	CA	VAL	A	162	3.979	58.019	44.838	1.00	34.99
	ATOM	1249	C	VAL	A	162	4.273	59.319	44.148	1.00	42.57
45	ATOM	1250	O	VAL	A	162	4.470	59.354	42.932	1.00	44.41
	ATOM	1251	CB	VAL	A	162	5.300	57.498	45.402	1.00	35.97
	ATOM	1252	CG1	VAL	A	162	5.084	56.219	46.188	1.00	36.12
	ATOM	1253	CG2	VAL	A	162	6.222	57.194	44.239	1.00	35.42
	ATOM	1254	N	PRO	A	163	4.332	60.377	44.942	1.00	32.95
50	ATOM	1255	CA	PRO	A	163	4.664	61.662	44.400	1.00	31.07
	ATOM	1256	C	PRO	A	163	5.966	61.496	43.652	1.00	39.67
	ATOM	1257	O	PRO	A	163	6.919	60.892	44.142	1.00	42.78
	ATOM	1258	CB	PRO	A	163	4.780	62.562	45.618	1.00	31.62
	ATOM	1259	CG	PRO	A	163	3.946	61.893	46.714	1.00	33.93
55	ATOM	1260	CD	PRO	A	163	3.652	60.480	46.259	1.00	28.53
	ATOM	1261	N	LYS	A	164	5.962	61.978	42.436	1.00	38.52
	ATOM	1262	CA	LYS	A	164	7.086	61.860	41.539	1.00	39.97
	ATOM	1263	C	LYS	A	164	8.451	62.222	42.088	1.00	42.75
	ATOM	1264	O	LYS	A	164	9.453	61.708	41.593	1.00	44.47
60	ATOM	1265	CB	LYS	A	164	6.828	62.479	40.177	1.00	44.67
	ATOM	1266	CG	LYS	A	164	6.004	63.758	40.257	1.00	78.05
	ATOM	1267	CD	LYS	A	164	6.651	64.918	39.497	1.00	100.00
	ATOM	1268	CE	LYS	A	164	6.016	66.289	39.772	1.00	100.00
	ATOM	1269	NZ	LYS	A	164	6.679	67.075	40.835	1.00	100.00
	ATOM	1270	N	GLU	A	165	8.519	63.097	43.082	1.00	37.25

5	ATOM	1271	CA	GLU	A	165	9.814	63.489	43.665	1.00	39.56
	ATOM	1272	C	GLU	A	165	10.333	62.462	44.677	1.00	46.39
	ATOM	1273	O	GLU	A	165	11.531	62.318	44.927	1.00	48.93
	ATOM	1274	CB	GLU	A	165	9.797	64.902	44.297	1.00	42.10
	ATOM	1275	CG	GLU	A	165	8.602	65.156	45.257	1.00	58.16
10	ATOM	1276	CD	GLU	A	165	7.214	64.970	44.664	1.00	88.01
	ATOM	1277	OE1	GLU	A	165	6.994	64.757	43.475	1.00	79.46
	ATOM	1278	OE2	GLU	A	165	6.266	65.050	45.575	1.00	70.27
	ATOM	1279	N	LEU	A	166	9.398	61.733	45.265	1.00	40.39
	ATOM	1280	CA	LEU	A	166	9.696	60.733	46.254	1.00	36.56
15	ATOM	1281	C	LEU	A	166	9.934	59.377	45.640	1.00	47.52
	ATOM	1282	O	LEU	A	166	9.366	59.080	44.581	1.00	52.86
	ATOM	1283	CB	LEU	A	166	8.525	60.630	47.250	1.00	31.92
	ATOM	1284	CG	LEU	A	166	8.315	61.912	48.057	1.00	29.18
	ATOM	1285	CD1	LEU	A	166	7.363	61.590	49.189	1.00	25.96
20	ATOM	1286	CD2	LEU	A	166	9.635	62.467	48.622	1.00	23.78
	ATOM	1287	N	VAL	A	167	10.769	58.564	46.328	1.00	34.75
	ATOM	1288	CA	VAL	A	167	11.077	57.218	45.908	1.00	30.00
	ATOM	1289	C	VAL	A	167	10.332	56.229	46.771	1.00	38.80
	ATOM	1290	O	VAL	A	167	9.902	56.532	47.879	1.00	40.91
25	ATOM	1291	CB	VAL	A	167	12.549	56.860	46.048	1.00	31.28
	ATOM	1292	CG1	VAL	A	167	12.854	55.542	45.329	1.00	28.20
	ATOM	1293	CG2	VAL	A	167	13.456	57.964	45.565	1.00	31.06
	ATOM	1294	N	ALA	A	168	10.217	55.019	46.257	1.00	36.46
	ATOM	1295	CA	ALA	A	168	9.584	53.935	46.979	1.00	35.14
30	ATOM	1296	C	ALA	A	168	10.418	52.662	46.836	1.00	43.27
	ATOM	1297	O	ALA	A	168	10.889	52.343	45.733	1.00	44.74
	ATOM	1298	CB	ALA	A	168	8.149	53.700	46.550	1.00	34.20
	ATOM	1299	N	LEU	A	169	10.603	51.960	47.975	1.00	35.27
	ATOM	1300	CA	LEU	A	169	11.323	50.696	48.069	1.00	29.39
35	ATOM	1301	C	LEU	A	169	10.491	49.635	48.797	1.00	33.87
	ATOM	1302	O	LEU	A	169	9.604	49.918	49.613	1.00	31.21
	ATOM	1303	CB	LEU	A	169	12.721	50.835	48.656	1.00	28.62
	ATOM	1304	CG	LEU	A	169	13.593	51.810	47.891	1.00	35.90
	ATOM	1305	CD1	LEU	A	169	14.953	51.819	48.558	1.00	39.38
40	ATOM	1306	CD2	LEU	A	169	13.765	51.394	46.432	1.00	37.35
	ATOM	1307	N	MET	A	170	10.758	48.381	48.479	1.00	34.23
	ATOM	1308	CA	MET	A	170	10.012	47.291	49.069	1.00	31.07
	ATOM	1309	C	MET	A	170	10.874	46.083	49.287	1.00	34.13
	ATOM	1310	O	MET	A	170	11.995	45.973	48.775	1.00	35.20
45	ATOM	1311	CB	MET	A	170	8.842	46.882	48.154	1.00	31.95
	ATOM	1312	CG	MET	A	170	7.751	47.934	48.116	1.00	33.13
	ATOM	1313	SD	MET	A	170	6.105	47.253	47.815	1.00	34.54
	ATOM	1314	CE	MET	A	170	5.820	46.349	49.363	1.00	32.25
	ATOM	1315	N	SER	A	171	10.332	45.165	50.057	1.00	28.20
50	ATOM	1316	CA	SER	A	171	11.064	43.953	50.297	1.00	28.47
	ATOM	1317	C	SER	A	171	10.929	43.054	49.049	1.00	32.01
	ATOM	1318	O	SER	A	171	10.396	41.958	49.089	1.00	30.93
	ATOM	1319	CB	SER	A	171	10.662	43.265	51.606	1.00	30.93
	ATOM	1320	OG	SER	A	171	9.297	42.920	51.581	1.00	32.90
55	ATOM	1321	N	ALA	A	172	11.401	43.543	47.912	1.00	28.84
	ATOM	1322	CA	ALA	A	172	11.286	42.773	46.691	1.00	29.48
	ATOM	1323	C	ALA	A	172	12.241	43.258	45.644	1.00	37.63
	ATOM	1324	O	ALA	A	172	13.060	44.147	45.881	1.00	35.07
	ATOM	1325	CB	ALA	A	172	9.884	42.969	46.120	1.00	29.48
60	ATOM	1326	N	ILE	A	173	12.104	42.686	44.452	1.00	39.49
	ATOM	1327	CA	ILE	A	173	12.966	43.120	43.382	1.00	38.64
	ATOM	1328	C	ILE	A	173	12.418	44.343	42.648	1.00	44.83
	ATOM	1329	O	ILE	A	173	11.269	44.394	42.193	1.00	40.97
	ATOM	1330	CB	ILE	A	173	13.549	42.027	42.479	1.00	38.79
	ATOM	1331	CG1	ILE	A	173	14.258	40.970	43.302	1.00	37.40
	ATOM	1332	CG2	ILE	A	173	14.606	42.621	41.570	1.00	38.88
	ATOM	1333	CD1	ILE	A	173	15.770	41.069	43.193	1.00	25.93
	ATOM	1334	N	ARG	A	174	13.286	45.345	42.584	1.00	43.21

	ATOM	1335	CA	ARG	A	174	12.997	46.567	41.917	1.00	42.34
	ATOM	1336	C	ARG	A	174	12.630	46.173	40.516	1.00	47.54
	ATOM	1337	O	ARG	A	174	13.478	45.667	39.770	1.00	42.08
5	ATOM	1338	CB	ARG	A	174	14.254	47.422	41.937	1.00	42.47
	ATOM	1339	CG	ARG	A	174	14.231	48.450	43.075	1.00	53.40
	ATOM	1340	CD	ARG	A	174	15.617	48.917	43.515	1.00	33.80
	ATOM	1341	NE	ARG	A	174	16.036	50.083	42.756	1.00	53.32
	ATOM	1342	CZ	ARG	A	174	17.221	50.208	42.181	1.00	97.11
10	ATOM	1343	NH1	ARG	A	174	18.132	49.243	42.266	1.00	100.00
	ATOM	1344	NH2	ARG	A	174	17.503	51.321	41.489	1.00	100.00
	ATOM	1345	N	ASP	A	175	11.356	46.356	40.195	1.00	51.12
	ATOM	1346	CA	ASP	A	175	10.858	45.981	38.882	1.00	53.89
	ATOM	1347	C	ASP	A	175	10.778	47.128	37.885	1.00	58.32
15	ATOM	1348	O	ASP	A	175	10.455	46.901	36.727	1.00	56.00
	ATOM	1349	CB	ASP	A	175	9.533	45.186	38.948	1.00	57.16
	ATOM	1350	CG	ASP	A	175	9.196	44.446	37.675	1.00	81.25
	ATOM	1351	OD1	ASP	A	175	10.034	44.118	36.851	1.00	83.53
	ATOM	1352	OD2	ASP	A	175	7.910	44.176	37.558	1.00	92.45
20	ATOM	1353	N	GLY	A	176	11.062	48.356	38.331	1.00	58.24
	ATOM	1354	CA	GLY	A	176	11.021	49.498	37.438	1.00	57.71
	ATOM	1355	C	GLY	A	176	9.969	50.546	37.773	1.00	58.98
	ATOM	1356	O	GLY	A	176	9.090	50.371	38.620	1.00	52.04
	ATOM	1357	N	GLU	A	177	10.110	51.649	37.050	1.00	63.72
25	ATOM	1358	CA	GLU	A	177	9.267	52.812	37.172	1.00	67.79
	ATOM	1359	C	GLU	A	177	8.874	53.388	35.817	1.00	86.22
	ATOM	1360	O	GLU	A	177	9.614	53.364	34.830	1.00	91.14
	ATOM	1361	CB	GLU	A	177	9.986	53.902	38.006	1.00	68.25
	ATOM	1362	CG	GLU	A	177	11.432	54.145	37.519	1.00	71.58
30	ATOM	1363	CD	GLU	A	177	12.183	55.088	38.404	1.00	85.08
	ATOM	1364	OE1	GLU	A	177	13.045	54.733	39.198	1.00	100.00
	ATOM	1365	OE2	GLU	A	177	11.765	56.316	38.264	1.00	56.71
	ATOM	1366	N	THR	A	178	7.671	53.924	35.835	1.00	84.76
	ATOM	1367	CA	THR	A	178	6.684	54.686	35.042	1.00	84.81
	ATOM	1368	C	THR	A	178	6.024	55.810	35.855	1.00	90.37
35	ATOM	1369	O	THR	A	178	5.664	55.655	36.996	1.00	91.10
	ATOM	1370	CB	THR	A	178	5.618	53.713	34.561	1.00	89.82
	ATOM	1371	OG1	THR	A	178	5.283	52.830	35.636	1.00	80.25
	ATOM	1372	CG2	THR	A	178	6.161	52.898	33.396	1.00	93.46
40	ATOM	1373	N	PRO	A	179	5.921	56.984	35.217	1.00	87.05
	ATOM	1374	CA	PRO	A	179	5.365	58.187	35.845	1.00	86.61
	ATOM	1375	C	PRO	A	179	3.857	58.419	35.531	1.00	89.04
	ATOM	1376	O	PRO	A	179	3.444	59.516	35.140	1.00	91.15
	ATOM	1377	CB	PRO	A	179	6.176	59.345	35.301	1.00	88.63
45	ATOM	1378	CG	PRO	A	179	6.657	58.947	33.895	1.00	92.62
	ATOM	1379	CD	PRO	A	179	6.426	57.345	33.902	1.00	87.63
	ATOM	1380	N	ASP	A	180	3.020	57.347	35.694	1.00	82.31
	ATOM	1381	CA	ASP	A	180	1.616	57.568	35.310	1.00	81.19
	ATOM	1382	C	ASP	A	180	0.629	56.743	36.166	1.00	90.72
50	ATOM	1383	O	ASP	A	180	0.533	55.519	36.072	1.00	91.13
	ATOM	1384	CB	ASP	A	180	1.458	57.196	33.827	1.00	82.12
	ATOM	1385	CG	ASP	A	180	0.087	57.651	33.327	1.00	95.94
	ATOM	1386	OD1	ASP	A	180	-0.155	58.858	33.337	1.00	100.00
	ATOM	1387	OD2	ASP	A	180	-0.714	56.801	32.946	1.00	94.36
55	ATOM	1388	N	PRO	A	181	-0.060	57.456	37.086	1.00	92.45
	ATOM	1389	CA	PRO	A	181	-1.212	56.934	37.795	1.00	92.02
	ATOM	1390	C	PRO	A	181	-2.519	57.566	37.284	1.00	100.00
	ATOM	1391	O	PRO	A	181	-2.605	58.114	36.192	1.00	100.00
	ATOM	1392	CB	PRO	A	181	-1.014	57.340	39.210	1.00	92.48
60	ATOM	1393	CG	PRO	A	181	-0.362	58.734	39.152	1.00	98.39
	ATOM	1394	CD	PRO	A	181	0.268	58.736	37.663	1.00	94.17
	ATOM	1395	N	GLU	A	182	-3.567	57.456	38.141	1.00	100.00
	ATOM	1396	CA	GLU	A	182	-4.822	58.161	37.876	1.00	98.21
	ATOM	1397	C	GLU	A	182	-5.359	58.856	39.154	1.00	100.00
	ATOM	1398	O	GLU	A	182	-6.404	59.497	39.167	1.00	99.44

	ATOM	1399	CB	GLU	A	182	-5.854	57.142	37.356	1.00	98.57
	ATOM	1400	CG	GLU	A	182	-5.880	57.077	35.816	1.00	100.00
	ATOM	1401	CD	GLU	A	182	-7.013	57.938	35.300	1.00	100.00
5	ATOM	1402	OE1	GLU	A	182	-7.817	58.385	36.105	1.00	100.00
	ATOM	1403	OE2	GLU	A	182	-7.084	58.153	34.091	1.00	100.00
	ATOM	1404	N	ASP	A	183	-4.607	58.672	40.265	1.00	98.63
	ATOM	1405	CA	ASP	A	183	-5.021	59.257	41.552	1.00	97.49
	ATOM	1406	C	ASP	A	183	-4.126	60.472	41.932	1.00	100.00
10	ATOM	1407	O	ASP	A	183	-3.464	61.061	41.079	1.00	100.00
	ATOM	1408	CB	ASP	A	183	-4.946	58.144	42.619	1.00	98.36
	ATOM	1409	CG	ASP	A	183	-3.612	57.409	42.547	1.00	100.00
	ATOM	1410	OD1	ASP	A	183	-3.471	56.556	41.668	1.00	100.00
	ATOM	1411	OD2	ASP	A	183	-2.741	57.688	43.364	1.00	100.00
15	ATOM	1412	N	PRO	A	184	-4.187	60.906	43.237	1.00	97.96
	ATOM	1413	CA	PRO	A	184	-3.311	61.985	43.738	1.00	97.92
	ATOM	1414	C	PRO	A	184	-1.865	61.528	44.071	1.00	97.89
	ATOM	1415	O	PRO	A	184	-1.348	61.748	45.159	1.00	100.00
	ATOM	1416	CB	PRO	A	184	-3.973	62.561	44.992	1.00	98.86
20	ATOM	1417	CG	PRO	A	184	-5.262	61.777	45.284	1.00	100.00
	ATOM	1418	CD	PRO	A	184	-5.122	60.532	44.284	1.00	97.20
	ATOM	1419	N	SER	A	185	-1.249	60.840	43.071	1.00	82.40
	ATOM	1420	CA	SER	A	185	0.196	60.496	43.086	1.00	75.26
	ATOM	1421	C	SER	A	185	0.748	60.563	41.623	1.00	71.84
25	ATOM	1422	O	SER	A	185	-0.006	60.525	40.670	1.00	77.97
	ATOM	1423	CB	SER	A	185	0.337	59.068	43.636	1.00	73.41
	ATOM	1424	OG	SER	A	185	0.672	59.109	45.027	1.00	63.60
	ATOM	1425	N	ARG	A	186	2.107	60.704	41.461	1.00	57.89
	ATOM	1426	CA	ARG	A	186	2.650	60.971	40.088	1.00	56.00
30	ATOM	1427	C	ARG	A	186	3.725	59.943	39.633	1.00	59.64
	ATOM	1428	O	ARG	A	186	4.473	60.157	38.688	1.00	60.30
	ATOM	1429	CB	ARG	A	186	3.258	62.393	40.064	1.00	63.74
	ATOM	1430	CG	ARG	A	186	2.339	63.457	40.677	1.00	80.44
	ATOM	1431	CD	ARG	A	186	1.188	63.874	39.736	1.00	71.31
35	ATOM	1432	NE	ARG	A	186	1.316	63.215	38.436	1.00	79.64
	ATOM	1433	CZ	ARG	A	186	0.185	62.862	37.784	1.00	95.30
	ATOM	1434	NH1	ARG	A	186	-0.999	63.109	38.312	1.00	56.25
	ATOM	1435	NH2	ARG	A	186	0.276	62.232	36.603	1.00	89.98
	ATOM	1436	N	LYS	A	187	3.892	58.778	40.265	1.00	54.50
40	ATOM	1437	CA	LYS	A	187	4.891	57.805	39.851	1.00	51.93
	ATOM	1438	C	LYS	A	187	4.506	56.436	40.276	1.00	52.96
	ATOM	1439	O	LYS	A	187	3.971	56.236	41.368	1.00	53.58
	ATOM	1440	CB	LYS	A	187	6.247	58.047	40.470	1.00	53.78
	ATOM	1441	CG	LYS	A	187	7.427	57.714	39.574	1.00	43.05
45	ATOM	1442	CD	LYS	A	187	8.517	58.761	39.762	1.00	53.36
	ATOM	1443	CE	LYS	A	187	9.870	58.468	39.146	1.00	39.68
	ATOM	1444	NZ	LYS	A	187	10.795	59.601	39.341	1.00	40.19
	ATOM	1445	N	ILE	A	188	4.819	55.502	39.403	1.00	46.36
	ATOM	1446	CA	ILE	A	188	4.565	54.128	39.700	1.00	43.57
50	ATOM	1447	C	ILE	A	188	5.824	53.311	39.851	1.00	42.64
	ATOM	1448	O	ILE	A	188	6.647	53.189	38.937	1.00	41.55
	ATOM	1449	CB	ILE	A	188	3.579	53.425	38.826	1.00	45.64
	ATOM	1450	CG1	ILE	A	188	2.193	54.021	39.047	1.00	45.82
	ATOM	1451	CG2	ILE	A	188	3.590	51.969	39.273	1.00	43.43
55	ATOM	1452	CD1	ILE	A	188	1.448	53.505	40.276	1.00	62.08
	ATOM	1453	N	TYR	A	189	5.950	52.757	41.042	1.00	35.58
	ATOM	1454	CA	TYR	A	189	7.079	51.933	41.356	1.00	37.57
	ATOM	1455	C	TYR	A	189	6.652	50.465	41.359	1.00	44.89
	ATOM	1456	O	TYR	A	189	5.656	50.092	41.999	1.00	44.33
60	ATOM	1457	CB	TYR	A	189	7.752	52.392	42.661	1.00	37.85
	ATOM	1458	CG	TYR	A	189	8.692	53.563	42.456	1.00	34.49
	ATOM	1459	CD1	TYR	A	189	9.968	53.375	41.930	1.00	35.93
	ATOM	1460	CD2	TYR	A	189	8.310	54.859	42.813	1.00	32.44
	ATOM	1461	CE1	TYR	A	189	10.843	54.449	41.753	1.00	36.88
	ATOM	1462	CE2	TYR	A	189	9.170	55.945	42.647	1.00	31.63

	ATOM	1463	CZ	TYR	A	189	10.441	55.734	42.113	1.00	44.54
	ATOM	1464	OH	TYR	A	189	11.296	56.788	41.929	1.00	57.77
	ATOM	1465	N	LYS	A	190	7.413	49.651	40.608	1.00	42.91
5	ATOM	1466	CA	LYS	A	190	7.173	48.210	40.420	1.00	42.22
	ATOM	1467	C	LYS	A	190	8.152	47.262	41.143	1.00	40.73
	ATOM	1468	O	LYS	A	190	9.398	47.400	41.093	1.00	35.69
	ATOM	1469	CB	LYS	A	190	7.007	47.839	38.944	1.00	45.87
	ATOM	1470	CG	LYS	A	190	5.735	48.403	38.306	1.00	71.08
10	ATOM	1471	CD	LYS	A	190	5.758	48.384	36.779	1.00	84.62
	ATOM	1472	CE	LYS	A	190	4.386	48.157	36.147	1.00	100.00
	ATOM	1473	NZ	LYS	A	190	4.299	46.930	35.329	1.00	100.00
	ATOM	1474	N	PHE	A	191	7.539	46.264	41.812	1.00	35.01
	ATOM	1475	CA	PHE	A	191	8.276	45.304	42.592	1.00	31.57
15	ATOM	1476	C	PHE	A	191	7.792	43.871	42.465	1.00	30.89
	ATOM	1477	O	PHE	A	191	6.603	43.584	42.377	1.00	25.06
	ATOM	1478	CB	PHE	A	191	8.217	45.734	44.080	1.00	32.11
	ATOM	1479	CG	PHE	A	191	8.570	47.190	44.372	1.00	29.24
	ATOM	1480	CD1	PHE	A	191	9.895	47.593	44.539	1.00	31.81
20	ATOM	1481	CD2	PHE	A	191	7.565	48.147	44.508	1.00	30.17
	ATOM	1482	CE1	PHE	A	191	10.230	48.925	44.805	1.00	34.10
	ATOM	1483	CE2	PHE	A	191	7.866	49.483	44.776	1.00	33.69
	ATOM	1484	CZ	PHE	A	191	9.201	49.860	44.928	1.00	33.32
	ATOM	1485	N	ILE	A	192	8.764	42.961	42.505	1.00	35.75
25	ATOM	1486	CA	ILE	A	192	8.525	41.520	42.415	1.00	37.02
	ATOM	1487	C	ILE	A	192	9.255	40.653	43.469	1.00	33.05
	ATOM	1488	O	ILE	A	192	10.489	40.672	43.593	1.00	30.73
	ATOM	1489	CB	ILE	A	192	8.850	40.970	41.025	1.00	42.45
	ATOM	1490	CG1	ILE	A	192	8.289	41.914	39.981	1.00	46.39
30	ATOM	1491	CG2	ILE	A	192	8.251	39.567	40.859	1.00	44.02
	ATOM	1492	CD1	ILE	A	192	7.609	41.231	38.798	1.00	69.61
	ATOM	1493	N	GLN	A	193	8.459	39.864	44.195	1.00	27.51
	ATOM	1494	CA	GLN	A	193	8.954	38.908	45.177	1.00	32.05
	ATOM	1495	C	GLN	A	193	8.626	37.488	44.757	1.00	44.32
35	ATOM	1496	O	GLN	A	193	7.583	36.926	45.120	1.00	43.11
	ATOM	1497	CB	GLN	A	193	8.502	39.100	46.638	1.00	33.44
	ATOM	1498	CG	GLN	A	193	9.285	38.203	47.632	1.00	22.34
	ATOM	1499	CD	GLN	A	193	10.824	38.337	47.636	1.00	48.52
	ATOM	1500	OE1	GLN	A	193	11.557	37.537	47.016	1.00	45.24
40	ATOM	1501	NE2	GLN	A	193	11.326	39.330	48.373	1.00	24.82
	ATOM	1502	N	LYS	A	194	9.543	36.908	43.993	1.00	46.91
	ATOM	1503	CA	LYS	A	194	9.384	35.540	43.529	1.00	47.56
	ATOM	1504	C	LYS	A	194	9.456	34.524	44.666	1.00	49.56
	ATOM	1505	O	LYS	A	194	8.777	33.520	44.598	1.00	50.85
45	ATOM	1506	CB	LYS	A	194	10.385	35.159	42.439	1.00	48.11
	ATOM	1507	CG	LYS	A	194	9.884	35.443	41.031	1.00	55.70
	ATOM	1508	CD	LYS	A	194	10.895	36.200	40.179	1.00	67.67
	ATOM	1509	CE	LYS	A	194	10.614	36.122	38.682	1.00	81.92
	ATOM	1510	NZ	LYS	A	194	11.284	37.185	37.910	1.00	88.34
50	ATOM	1511	N	VAL	A	195	10.308	34.753	45.689	1.00	39.55
	ATOM	1512	CA	VAL	A	195	10.422	33.780	46.764	1.00	33.56
	ATOM	1513	C	VAL	A	195	9.261	33.862	47.698	1.00	35.67
	ATOM	1514	O	VAL	A	195	8.804	34.945	48.034	1.00	38.69
	ATOM	1515	CB	VAL	A	195	11.716	33.844	47.560	1.00	32.62
55	ATOM	1516	CG1	VAL	A	195	11.849	32.539	48.310	1.00	32.40
	ATOM	1517	CG2	VAL	A	195	12.933	34.029	46.667	1.00	30.55
	ATOM	1518	N	PRO	A	196	8.770	32.717	48.126	1.00	27.75
	ATOM	1519	CA	PRO	A	196	7.653	32.757	49.038	1.00	26.18
	ATOM	1520	C	PRO	A	196	8.132	33.236	50.410	1.00	35.86
60	ATOM	1521	O	PRO	A	196	9.185	32.809	50.899	1.00	35.43
	ATOM	1522	CB	PRO	A	196	7.022	31.359	49.044	1.00	26.04
	ATOM	1523	CG	PRO	A	196	7.856	30.472	48.113	1.00	27.79
	ATOM	1524	CD	PRO	A	196	8.964	31.352	47.546	1.00	25.40
	ATOM	1525	N	ILE	A	197	7.388	34.171	51.009	1.00	29.92
	ATOM	1526	CA	ILE	A	197	7.772	34.697	52.284	1.00	26.98

	ATOM	1527	C	ILE	A	197	6.544	34.809	53.128	1.00	34.88
	ATOM	1528	O	ILE	A	197	5.444	34.788	52.606	1.00	29.68
	ATOM	1529	CB	ILE	A	197	8.334	36.100	52.094	1.00	27.90
5	ATOM	1530	CG1	ILE	A	197	7.342	36.867	51.254	1.00	27.78
	ATOM	1531	CG2	ILE	A	197	9.659	36.091	51.337	1.00	28.12
	ATOM	1532	CD1	ILE	A	197	7.494	38.378	51.438	1.00	19.03
	ATOM	1533	N	PRO	A	198	6.743	34.936	54.447	1.00	36.02
	ATOM	1534	CA	PRO	A	198	5.647	35.110	55.410	1.00	31.31
10	ATOM	1535	C	PRO	A	198	5.299	36.583	55.308	1.00	28.27
	ATOM	1536	O	PRO	A	198	6.212	37.391	55.115	1.00	22.70
	ATOM	1537	CB	PRO	A	198	6.252	34.849	56.794	1.00	31.17
	ATOM	1538	CG	PRO	A	198	7.768	34.768	56.615	1.00	34.94
	ATOM	1539	CD	PRO	A	198	8.057	34.706	55.122	1.00	32.99
15	ATOM	1540	N	CYS	A	199	4.011	36.939	55.405	1.00	27.60
	ATOM	1541	CA	CYS	A	199	3.555	38.360	55.289	1.00	27.66
	ATOM	1542	C	CYS	A	199	4.255	39.390	56.187	1.00	30.13
	ATOM	1543	O	CYS	A	199	4.294	40.596	55.895	1.00	29.50
	ATOM	1544	CB	CYS	A	199	2.025	38.534	55.242	1.00	27.18
20	ATOM	1545	SG	CYS	A	199	1.232	38.279	56.841	1.00	30.85
	ATOM	1546	N	TYR	A	200	4.847	38.903	57.270	1.00	26.15
	ATOM	1547	CA	TYR	A	200	5.538	39.798	58.123	1.00	28.28
	ATOM	1548	C	TYR	A	200	6.760	40.395	57.483	1.00	32.29
	ATOM	1549	O	TYR	A	200	7.359	41.286	58.036	1.00	31.56
25	ATOM	1550	CB	TYR	A	200	5.844	39.215	59.489	1.00	30.59
	ATOM	1551	CG	TYR	A	200	6.989	38.272	59.568	1.00	28.28
	ATOM	1552	CD1	TYR	A	200	8.288	38.733	59.689	1.00	29.48
	ATOM	1553	CD2	TYR	A	200	6.756	36.903	59.475	1.00	27.55
	ATOM	1554	CE1	TYR	A	200	9.377	37.862	59.825	1.00	21.42
30	ATOM	1555	CE2	TYR	A	200	7.838	36.015	59.595	1.00	27.41
	ATOM	1556	CZ	TYR	A	200	9.144	36.488	59.737	1.00	25.11
	ATOM	1557	OH	TYR	A	200	10.215	35.614	59.880	1.00	27.62
	ATOM	1558	N	LEU	A	201	7.113	39.897	56.313	1.00	31.66
	ATOM	1559	CA	LEU	A	201	8.278	40.378	55.579	1.00	29.49
35	ATOM	1560	C	LEU	A	201	7.914	41.343	54.484	1.00	33.65
	ATOM	1561	O	LEU	A	201	8.767	41.737	53.686	1.00	35.31
	ATOM	1562	CB	LEU	A	201	9.225	39.275	55.035	1.00	27.04
	ATOM	1563	CG	LEU	A	201	9.697	38.271	56.071	1.00	27.42
	ATOM	1564	CD1	LEU	A	201	10.254	37.030	55.390	1.00	23.71
40	ATOM	1565	CD2	LEU	A	201	10.764	38.913	56.957	1.00	30.55
	ATOM	1566	N	ILE	A	202	6.648	41.710	54.438	1.00	28.66
	ATOM	1567	CA	ILE	A	202	6.249	42.674	53.433	1.00	29.57
	ATOM	1568	C	ILE	A	202	6.636	44.074	53.951	1.00	40.28
	ATOM	1569	O	ILE	A	202	6.192	44.493	55.027	1.00	40.75
45	ATOM	1570	CB	ILE	A	202	4.733	42.651	53.182	1.00	31.18
	ATOM	1571	CG1	ILE	A	202	4.250	41.429	52.405	1.00	28.21
	ATOM	1572	CG2	ILE	A	202	4.259	43.962	52.521	1.00	29.23
	ATOM	1573	CD1	ILE	A	202	2.724	41.288	52.449	1.00	23.01
	ATOM	1574	N	ALA	A	203	7.445	44.813	53.197	1.00	39.14
50	ATOM	1575	CA	ALA	A	203	7.840	46.150	53.611	1.00	37.03
	ATOM	1576	C	ALA	A	203	7.819	47.159	52.482	1.00	34.32
	ATOM	1577	O	ALA	A	203	8.060	46.836	51.311	1.00	30.63
	ATOM	1578	CB	ALA	A	203	9.180	46.143	54.309	1.00	38.22
	ATOM	1579	N	LEU	A	204	7.514	48.388	52.910	1.00	33.64
55	ATOM	1580	CA	LEU	A	204	7.388	49.604	52.102	1.00	32.56
	ATOM	1581	C	LEU	A	204	7.993	50.817	52.812	1.00	37.69
	ATOM	1582	O	LEU	A	204	7.854	51.037	54.034	1.00	32.66
	ATOM	1583	CB	LEU	A	204	5.906	49.929	51.718	1.00	29.74
	ATOM	1584	CG	LEU	A	204	5.706	51.182	50.855	1.00	29.64
60	ATOM	1585	CD1	LEU	A	204	6.263	50.994	49.445	1.00	29.47
	ATOM	1586	CD2	LEU	A	204	4.222	51.515	50.750	1.00	33.50
	ATOM	1587	N	VAL	A	205	8.670	51.603	51.991	1.00	36.87
	ATOM	1588	CA	VAL	A	205	9.305	52.821	52.415	1.00	35.15
	ATOM	1589	C	VAL	A	205	9.224	53.795	51.284	1.00	38.41
	ATOM	1590	O	VAL	A	205	9.575	53.462	50.148	1.00	39.50

	ATOM	1591	CB	VAL	A	205	10.769	52.651	52.804	1.00	36.06
	ATOM	1592	CG1	VAL	A	205	11.466	51.794	51.757	1.00	35.08
	ATOM	1593	CG2	VAL	A	205	11.432	54.020	52.833	1.00	35.98
5	ATOM	1594	N	VAL	A	206	8.750	54.983	51.623	1.00	33.54
	ATOM	1595	CA	VAL	A	206	8.623	56.104	50.687	1.00	31.81
	ATOM	1596	C	VAL	A	206	9.300	57.343	51.249	1.00	31.62
	ATOM	1597	O	VAL	A	206	9.076	57.722	52.406	1.00	34.81
	ATOM	1598	CB	VAL	A	206	7.179	56.405	50.305	1.00	33.35
10	ATOM	1599	CG1	VAL	A	206	7.129	57.243	49.029	1.00	33.44
	ATOM	1600	CG2	VAL	A	206	6.452	55.084	50.109	1.00	31.98
	ATOM	1601	N	GLY	A	207	10.130	57.959	50.431	1.00	24.94
	ATOM	1602	CA	GLY	A	207	10.807	59.168	50.861	1.00	27.25
	ATOM	1603	C	GLY	A	207	11.802	59.632	49.838	1.00	38.81
15	ATOM	1604	O	GLY	A	207	12.046	58.966	48.840	1.00	39.82
	ATOM	1605	N	ALA	A	208	12.375	60.783	50.113	1.00	41.07
	ATOM	1606	CA	ALA	A	208	13.370	61.354	49.233	1.00	42.72
	ATOM	1607	C	ALA	A	208	14.660	60.550	49.356	1.00	49.10
	ATOM	1608	O	ALA	A	208	15.651	60.997	49.957	1.00	51.30
20	ATOM	1609	CB	ALA	A	208	13.605	62.810	49.589	1.00	42.95
	ATOM	1610	N	LEU	A	209	14.623	59.350	48.773	1.00	40.92
	ATOM	1611	CA	LEU	A	209	15.739	58.440	48.825	1.00	39.55
	ATOM	1612	C	LEU	A	209	16.756	58.575	47.743	1.00	47.96
	ATOM	1613	O	LEU	A	209	16.420	58.843	46.597	1.00	49.44
25	ATOM	1614	CB	LEU	A	209	15.269	56.994	48.894	1.00	37.97
	ATOM	1615	CG	LEU	A	209	14.420	56.803	50.129	1.00	40.46
	ATOM	1616	CD1	LEU	A	209	13.713	55.469	50.075	1.00	36.99
	ATOM	1617	CD2	LEU	A	209	15.283	56.921	51.387	1.00	43.31
	ATOM	1618	N	GLU	A	210	17.999	58.317	48.182	1.00	42.68
30	ATOM	1619	CA	GLU	A	210	19.205	58.311	47.381	1.00	40.30
	ATOM	1620	C	GLU	A	210	19.965	57.056	47.693	1.00	47.51
	ATOM	1621	O	GLU	A	210	19.708	56.432	48.721	1.00	47.89
	ATOM	1622	CB	GLU	A	210	20.084	59.553	47.613	1.00	42.01
	ATOM	1623	CG	GLU	A	210	19.699	60.734	46.697	1.00	58.26
35	ATOM	1624	CD	GLU	A	210	20.524	61.970	46.897	1.00	100.00
	ATOM	1625	OE1	GLU	A	210	21.629	61.968	47.451	1.00	95.26
	ATOM	1626	OE2	GLU	A	210	19.935	63.047	46.486	1.00	100.00
	ATOM	1627	N	SER	A	211	20.895	56.662	46.805	1.00	45.01
	ATOM	1628	CA	SER	A	211	21.661	55.442	47.013	1.00	42.25
40	ATOM	1629	C	SER	A	211	23.143	55.535	46.667	1.00	43.37
	ATOM	1630	O	SER	A	211	23.649	56.493	46.086	1.00	46.43
	ATOM	1631	CB	SER	A	211	21.025	54.233	46.346	1.00	44.33
	ATOM	1632	OG	SER	A	211	21.274	54.244	44.934	1.00	54.15
	ATOM	1633	N	ARG	A	212	23.829	54.497	47.053	1.00	34.85
45	ATOM	1634	CA	ARG	A	212	25.229	54.328	46.791	1.00	35.41
	ATOM	1635	C	ARG	A	212	25.430	52.838	46.567	1.00	45.39
	ATOM	1636	O	ARG	A	212	24.840	52.027	47.276	1.00	48.85
	ATOM	1637	CB	ARG	A	212	26.101	54.846	47.915	1.00	37.25
	ATOM	1638	CG	ARG	A	212	27.151	55.827	47.402	1.00	68.10
50	ATOM	1639	CD	ARG	A	212	26.532	56.962	46.587	1.00	76.55
	ATOM	1640	NE	ARG	A	212	26.695	58.307	47.148	1.00	55.19
	ATOM	1641	CZ	ARG	A	212	25.845	59.301	46.867	1.00	70.87
	ATOM	1642	NH1	ARG	A	212	24.806	59.105	46.059	1.00	35.71
	ATOM	1643	NH2	ARG	A	212	26.032	60.516	47.392	1.00	73.35
55	ATOM	1644	N	GLN	A	213	26.210	52.442	45.567	1.00	40.74
	ATOM	1645	CA	GLN	A	213	26.408	51.021	45.331	1.00	39.90
	ATOM	1646	C	GLN	A	213	27.646	50.537	46.050	1.00	46.34
	ATOM	1647	O	GLN	A	213	28.740	50.981	45.741	1.00	53.77
	ATOM	1648	CB	GLN	A	213	26.545	50.741	43.846	1.00	40.99
60	ATOM	1649	CG	GLN	A	213	26.976	49.296	43.532	1.00	55.79
	ATOM	1650	CD	GLN	A	213	26.292	48.743	42.301	1.00	76.04
	ATOM	1651	OE1	GLN	A	213	26.275	47.523	42.102	1.00	86.66
	ATOM	1652	NE2	GLN	A	213	25.700	49.618	41.489	1.00	55.45
	ATOM	1653	N	ILE	A	214	27.495	49.649	47.013	1.00	33.12
	ATOM	1654	CA	ILE	A	214	28.663	49.206	47.743	1.00	32.55

	ATOM	1655	C	ILE	A	214	28.911	47.765	47.536	1.00	39.29
	ATOM	1656	O	ILE	A	214	29.726	47.162	48.230	1.00	42.41
	ATOM	1657	CB	ILE	A	214	28.546	49.428	49.250	1.00	35.72
5	ATOM	1658	CG1	ILE	A	214	27.395	48.573	49.791	1.00	36.13
	ATOM	1659	CG2	ILE	A	214	28.344	50.911	49.598	1.00	35.79
	ATOM	1660	CD1	ILE	A	214	27.067	48.841	51.260	1.00	46.69
	ATOM	1661	N	GLY	A	215	28.199	47.197	46.598	1.00	35.02
	ATOM	1662	CA	GLY	A	215	28.638	45.855	46.234	1.00	34.88
10	ATOM	1663	C	GLY	A	215	27.970	45.405	44.950	1.00	41.09
	ATOM	1664	O	GLY	A	215	27.083	46.048	44.425	1.00	44.25
	ATOM	1665	N	PRO	A	216	28.448	44.262	44.410	1.00	39.62
	ATOM	1666	CA	PRO	A	216	27.890	43.720	43.197	1.00	39.69
	ATOM	1667	C	PRO	A	216	26.369	43.661	43.253	1.00	41.56
15	ATOM	1668	O	PRO	A	216	25.655	43.817	42.240	1.00	44.35
	ATOM	1669	CB	PRO	A	216	28.448	42.311	42.996	1.00	39.91
	ATOM	1670	CG	PRO	A	216	29.377	41.993	44.164	1.00	41.54
	ATOM	1671	CD	PRO	A	216	29.514	43.411	44.897	1.00	37.70
	ATOM	1672	N	ARG	A	217	25.846	43.398	44.477	1.00	31.04
20	ATOM	1673	CA	ARG	A	217	24.421	43.328	44.652	1.00	29.22
	ATOM	1674	C	ARG	A	217	23.928	44.109	45.872	1.00	38.24
	ATOM	1675	O	ARG	A	217	22.861	43.885	46.368	1.00	40.69
	ATOM	1676	CB	ARG	A	217	24.012	41.844	44.790	1.00	22.75
	ATOM	1677	CG	ARG	A	217	25.221	40.963	45.109	1.00	40.77
25	ATOM	1678	CD	ARG	A	217	24.828	39.774	45.985	1.00	34.08
	ATOM	1679	NE	ARG	A	217	26.020	39.183	46.581	1.00	45.20
	ATOM	1680	CZ	ARG	A	217	25.955	37.894	46.911	1.00	65.13
	ATOM	1681	NH1	ARG	A	217	24.832	37.220	46.716	1.00	42.40
	ATOM	1682	NH2	ARG	A	217	26.997	37.300	47.472	1.00	48.08
30	ATOM	1683	N	THR	A	218	24.784	45.022	46.404	1.00	31.00
	ATOM	1684	CA	THR	A	218	24.309	45.886	47.487	1.00	31.00
	ATOM	1685	C	THR	A	218	24.128	47.319	47.021	1.00	43.60
	ATOM	1686	O	THR	A	218	25.065	47.930	46.512	1.00	48.42
	ATOM	1687	CB	THR	A	218	25.315	45.845	48.640	1.00	36.95
35	ATOM	1688	OG1	THR	A	218	25.430	44.517	49.139	1.00	45.66
	ATOM	1689	CG2	THR	A	218	24.826	46.751	49.766	1.00	34.17
	ATOM	1690	N	LEU	A	219	23.099	48.018	47.431	1.00	39.19
	ATOM	1691	CA	LEU	A	219	23.055	49.452	47.315	1.00	38.18
	ATOM	1692	C	LEU	A	219	22.713	50.000	48.695	1.00	42.32
40	ATOM	1693	O	LEU	A	219	22.108	49.289	49.498	1.00	43.67
	ATOM	1694	CB	LEU	A	219	21.927	49.841	46.356	1.00	37.05
	ATOM	1695	CG	LEU	A	219	22.386	50.657	45.168	1.00	39.31
	ATOM	1696	CD1	LEU	A	219	23.670	50.064	44.613	1.00	40.57
	ATOM	1697	CD2	LEU	A	219	21.283	50.619	44.131	1.00	29.39
45	ATOM	1698	N	VAL	A	220	23.066	51.241	48.976	1.00	35.01
	ATOM	1699	CA	VAL	A	220	22.741	51.830	50.253	1.00	36.98
	ATOM	1700	C	VAL	A	220	21.736	52.923	50.043	1.00	44.08
	ATOM	1701	O	VAL	A	220	21.959	53.835	49.256	1.00	46.60
	ATOM	1702	CB	VAL	A	220	23.965	52.346	51.028	1.00	44.95
50	ATOM	1703	CG1	VAL	A	220	23.675	52.428	52.516	1.00	43.16
	ATOM	1704	CG2	VAL	A	220	25.138	51.382	50.828	1.00	47.70
	ATOM	1705	N	TRP	A	221	20.622	52.818	50.731	1.00	41.98
	ATOM	1706	CA	TRP	A	221	19.605	53.828	50.602	1.00	41.64
	ATOM	1707	C	TRP	A	221	19.464	54.612	51.872	1.00	42.40
55	ATOM	1708	O	TRP	A	221	19.461	54.060	52.960	1.00	45.56
	ATOM	1709	CB	TRP	A	221	18.256	53.245	50.186	1.00	41.24
	ATOM	1710	CG	TRP	A	221	18.353	52.459	48.918	1.00	42.59
	ATOM	1711	CD1	TRP	A	221	18.888	51.225	48.793	1.00	45.35
	ATOM	1712	CD2	TRP	A	221	17.949	52.873	47.590	1.00	41.62
60	ATOM	1713	NE1	TRP	A	221	18.826	50.832	47.478	1.00	44.74
	ATOM	1714	CE2	TRP	A	221	18.243	51.821	46.720	1.00	45.31
	ATOM	1715	CE3	TRP	A	221	17.345	54.009	47.061	1.00	41.17
	ATOM	1716	CZ2	TRP	A	221	17.958	51.902	45.346	1.00	42.60
	ATOM	1717	CZ3	TRP	A	221	17.054	54.083	45.710	1.00	39.08
	ATOM	1718	CH2	TRP	A	221	17.360	53.040	44.864	1.00	38.48



5	ATOM	1719	N	SER	A	222	19.271	55.896	51.688	1.00	37.01
	ATOM	1720	CA	SER	A	222	19.017	56.846	52.748	1.00	38.05
	ATOM	1721	C	SER	A	222	18.853	58.251	52.205	1.00	45.28
	ATOM	1722	O	SER	A	222	19.005	58.503	51.008	1.00	44.02
	ATOM	1723	CB	SER	A	222	20.098	56.816	53.820	1.00	39.07
10	ATOM	1724	OG	SER	A	222	21.322	57.149	53.229	1.00	42.36
	ATOM	1725	N	GLU	A	223	18.586	59.190	53.088	1.00	40.91
	ATOM	1726	CA	GLU	A	223	18.465	60.527	52.584	1.00	41.97
	ATOM	1727	C	GLU	A	223	19.843	61.042	52.234	1.00	50.17
	ATOM	1728	O	GLU	A	223	20.829	60.701	52.863	1.00	52.02
15	ATOM	1729	CB	GLU	A	223	17.856	61.483	53.597	1.00	43.06
	ATOM	1730	CG	GLU	A	223	16.364	61.262	53.861	1.00	51.71
	ATOM	1731	CD	GLU	A	223	15.799	62.478	54.545	1.00	84.51
	ATOM	1732	OE1	GLU	A	223	15.905	63.610	54.085	1.00	56.82
	ATOM	1733	OE2	GLU	A	223	15.244	62.222	55.705	1.00	88.87
20	ATOM	1734	N	LYS	A	224	19.892	61.875	51.229	1.00	47.39
	ATOM	1735	CA	LYS	A	224	21.139	62.456	50.792	1.00	48.51
	ATOM	1736	C	LYS	A	224	22.163	62.683	51.930	1.00	50.90
	ATOM	1737	O	LYS	A	224	23.382	62.569	51.736	1.00	51.55
	ATOM	1738	CB	LYS	A	224	20.843	63.736	49.986	1.00	51.58
25	ATOM	1739	CG	LYS	A	224	22.039	64.648	49.723	1.00	81.16
	ATOM	1740	CD	LYS	A	224	21.954	65.397	48.392	1.00	97.82
	ATOM	1741	CE	LYS	A	224	21.646	66.891	48.530	1.00	100.00
	ATOM	1742	NZ	LYS	A	224	22.056	67.700	47.362	1.00	100.00
	ATOM	1743	N	GLU	A	225	21.683	63.011	53.123	1.00	45.77
30	ATOM	1744	CA	GLU	A	225	22.607	63.309	54.199	1.00	46.00
	ATOM	1745	C	GLU	A	225	23.227	62.150	54.902	1.00	47.99
	ATOM	1746	O	GLU	A	225	24.107	62.354	55.732	1.00	47.21
	ATOM	1747	CB	GLU	A	225	22.057	64.296	55.210	1.00	47.71
	ATOM	1748	CG	GLU	A	225	20.530	64.296	55.182	1.00	63.24
35	ATOM	1749	CD	GLU	A	225	19.931	65.219	54.150	1.00	75.13
	ATOM	1750	OE1	GLU	A	225	20.187	66.420	54.046	1.00	54.64
	ATOM	1751	OE2	GLU	A	225	19.039	64.578	53.420	1.00	49.64
	ATOM	1752	N	GLN	A	226	22.798	60.949	54.564	1.00	43.92
	ATOM	1753	CA	GLN	A	226	23.340	59.772	55.224	1.00	43.91
40	ATOM	1754	C	GLN	A	226	24.036	58.756	54.322	1.00	45.86
	ATOM	1755	O	GLN	A	226	24.756	57.871	54.806	1.00	45.70
	ATOM	1756	CB	GLN	A	226	22.252	59.084	56.063	1.00	45.27
	ATOM	1757	CG	GLN	A	226	21.965	59.790	57.400	1.00	31.17
	ATOM	1758	CD	GLN	A	226	21.297	61.155	57.302	1.00	44.48
45	ATOM	1759	OE1	GLN	A	226	21.823	62.149	57.820	1.00	37.36
	ATOM	1760	NE2	GLN	A	226	20.115	61.202	56.696	1.00	30.28
	ATOM	1761	N	VAL	A	227	23.814	58.871	53.021	1.00	41.20
	ATOM	1762	CA	VAL	A	227	24.406	57.947	52.071	1.00	43.13
	ATOM	1763	C	VAL	A	227	25.884	57.670	52.261	1.00	50.55
50	ATOM	1764	O	VAL	A	227	26.298	56.518	52.480	1.00	53.01
	ATOM	1765	CB	VAL	A	227	24.155	58.293	50.604	1.00	49.39
	ATOM	1766	CG1	VAL	A	227	24.319	57.029	49.771	1.00	48.89
	ATOM	1767	CG2	VAL	A	227	22.752	58.851	50.421	1.00	50.47
	ATOM	1768	N	GLU	A	228	26.696	58.718	52.170	1.00	44.08
55	ATOM	1769	CA	GLU	A	228	28.123	58.542	52.310	1.00	41.71
	ATOM	1770	C	GLU	A	228	28.514	57.871	53.583	1.00	44.20
	ATOM	1771	O	GLU	A	228	29.227	56.868	53.589	1.00	44.88
	ATOM	1772	CB	GLU	A	228	28.935	59.824	52.102	1.00	43.08
	ATOM	1773	CG	GLU	A	228	29.153	60.161	50.611	1.00	64.74
60	ATOM	1774	CD	GLU	A	228	29.114	58.965	49.701	1.00	84.29
	ATOM	1775	OE1	GLU	A	228	29.975	58.107	49.685	1.00	84.36
	ATOM	1776	OE2	GLU	A	228	28.064	58.951	48.917	1.00	73.81
	ATOM	1777	N	LYS	A	229	28.066	58.423	54.685	1.00	39.79
	ATOM	1778	CA	LYS	A	229	28.449	57.796	55.922	1.00	39.04
	ATOM	1779	C	LYS	A	229	27.949	56.375	55.930	1.00	40.38
	ATOM	1780	O	LYS	A	229	28.639	55.433	56.346	1.00	43.63
	ATOM	1781	CB	LYS	A	229	28.129	58.585	57.187	1.00	39.79
	ATOM	1782	CG	LYS	A	229	28.903	58.072	58.394	1.00	63.75

	ATOM	1783	CD	LYS	A	229	28.498	58.763	59.685	1.00	77.46
	ATOM	1784	CE	LYS	A	229	29.677	59.084	60.593	1.00	94.73
	ATOM	1785	NZ	LYS	A	229	30.344	60.353	60.256	1.00	100.00
5	ATOM	1786	N	SER	A	230	26.741	56.220	55.428	1.00	28.48
	ATOM	1787	CA	SER	A	230	26.174	54.891	55.377	1.00	25.93
	ATOM	1788	C	SER	A	230	27.089	53.988	54.587	1.00	30.26
	ATOM	1789	O	SER	A	230	27.469	52.855	54.955	1.00	28.48
	ATOM	1790	CB	SER	A	230	24.824	54.927	54.694	1.00	30.08
10	ATOM	1791	OG	SER	A	230	23.822	55.293	55.605	1.00	41.60
	ATOM	1792	N	ALA	A	231	27.436	54.536	53.459	1.00	31.13
	ATOM	1793	CA	ALA	A	231	28.280	53.820	52.593	1.00	36.66
	ATOM	1794	C	ALA	A	231	29.597	53.383	53.270	1.00	47.68
	ATOM	1795	O	ALA	A	231	30.003	52.238	53.103	1.00	54.59
15	ATOM	1796	CB	ALA	A	231	28.406	54.518	51.257	1.00	38.49
	ATOM	1797	N	TYR	A	232	30.256	54.246	54.060	1.00	40.77
	ATOM	1798	CA	TYR	A	232	31.500	53.830	54.730	1.00	38.40
	ATOM	1799	C	TYR	A	232	31.265	52.721	55.753	1.00	39.70
	ATOM	1800	O	TYR	A	232	32.041	51.772	55.862	1.00	36.46
20	ATOM	1801	CB	TYR	A	232	32.311	54.981	55.414	1.00	38.27
	ATOM	1802	CG	TYR	A	232	33.497	54.525	56.303	1.00	42.36
	ATOM	1803	CD1	TYR	A	232	34.755	54.238	55.753	1.00	46.41
	ATOM	1804	CD2	TYR	A	232	33.373	54.394	57.691	1.00	40.99
	ATOM	1805	CE1	TYR	A	232	35.835	53.815	56.534	1.00	47.23
25	ATOM	1806	CE2	TYR	A	232	34.441	53.979	58.496	1.00	40.10
	ATOM	1807	CZ	TYR	A	232	35.680	53.695	57.916	1.00	48.59
	ATOM	1808	OH	TYR	A	232	36.734	53.282	58.698	1.00	51.92
	ATOM	1809	N	GLU	A	233	30.191	52.883	56.519	1.00	35.75
	ATOM	1810	CA	GLU	A	233	29.835	51.984	57.606	1.00	34.55
30	ATOM	1811	C	GLU	A	233	29.633	50.498	57.252	1.00	38.39
	ATOM	1812	O	GLU	A	233	30.152	49.576	57.892	1.00	38.55
	ATOM	1813	CB	GLU	A	233	28.673	52.623	58.414	1.00	34.48
	ATOM	1814	CG	GLU	A	233	28.666	52.262	59.912	1.00	24.95
	ATOM	1815	CD	GLU	A	233	29.463	53.183	60.787	1.00	37.55
35	ATOM	1816	OE1	GLU	A	233	29.408	54.410	60.741	1.00	55.33
	ATOM	1817	OE2	GLU	A	233	30.216	52.518	61.619	1.00	40.65
	ATOM	1818	N	PHE	A	234	28.867	50.282	56.202	1.00	33.02
	ATOM	1819	CA	PHE	A	234	28.493	48.974	55.719	1.00	29.90
	ATOM	1820	C	PHE	A	234	29.341	48.398	54.592	1.00	34.69
40	ATOM	1821	O	PHE	A	234	28.883	47.521	53.823	1.00	34.21
	ATOM	1822	CB	PHE	A	234	27.020	49.081	55.293	1.00	30.23
	ATOM	1823	CG	PHE	A	234	26.215	49.752	56.394	1.00	30.32
	ATOM	1824	CD1	PHE	A	234	26.518	49.521	57.739	1.00	31.50
	ATOM	1825	CD2	PHE	A	234	25.151	50.605	56.102	1.00	28.66
45	ATOM	1826	CE1	PHE	A	234	25.780	50.103	58.772	1.00	30.43
	ATOM	1827	CE2	PHE	A	234	24.407	51.203	57.121	1.00	29.60
	ATOM	1828	CZ	PHE	A	234	24.725	50.959	58.458	1.00	27.47
	ATOM	1829	N	SER	A	235	30.571	48.874	54.476	1.00	29.55
50	ATOM	1830	CA	SER	A	235	31.428	48.366	53.412	1.00	28.64
	ATOM	1831	C	SER	A	235	31.387	46.858	53.338	1.00	30.38
	ATOM	1832	O	SER	A	235	31.166	46.252	52.282	1.00	32.37
	ATOM	1833	CB	SER	A	235	32.861	48.787	53.604	1.00	31.15
	ATOM	1834	OG	SER	A	235	33.028	49.368	54.873	1.00	39.32
	ATOM	1835	N	GLU	A	236	31.698	46.299	54.504	1.00	22.49
55	ATOM	1836	CA	GLU	A	236	31.815	44.873	54.737	1.00	23.79
	ATOM	1837	C	GLU	A	236	30.627	43.992	54.380	1.00	32.37
	ATOM	1838	O	GLU	A	236	30.697	42.772	54.545	1.00	29.91
	ATOM	1839	CB	GLU	A	236	32.305	44.529	56.134	1.00	24.06
	ATOM	1840	CG	GLU	A	236	33.491	45.403	56.585	1.00	22.96
60	ATOM	1841	CD	GLU	A	236	33.600	45.492	58.090	1.00	66.18
	ATOM	1842	OE1	GLU	A	236	32.633	45.482	58.849	1.00	37.01
	ATOM	1843	OE2	GLU	A	236	34.848	45.518	58.494	1.00	78.68
	ATOM	1844	N	THR	A	237	29.560	44.593	53.891	1.00	34.11
	ATOM	1845	CA	THR	A	237	28.384	43.823	53.539	1.00	33.69
	ATOM	1846	C	THR	A	237	28.644	42.609	52.644	1.00	33.33

	ATOM	1847	O	THR A 237	28.517	41.451	53.048	1.00	31.09
	ATOM	1848	CB	THR A 237	27.218	44.710	53.057	1.00	37.99
	ATOM	1849	OG1	THR A 237	26.899	45.675	54.048	1.00	33.49
5	ATOM	1850	CG2	THR A 237	25.995	43.862	52.744	1.00	25.66
	ATOM	1851	N	GLU A 238	29.020	42.854	51.409	1.00	29.69
	ATOM	1852	CA	GLU A 238	29.267	41.734	50.520	1.00	27.05
	ATOM	1853	C	GLU A 238	30.071	40.638	51.146	1.00	33.17
	ATOM	1854	O	GLU A 238	29.660	39.497	51.055	1.00	38.50
10	ATOM	1855	CB	GLU A 238	29.851	42.080	49.161	1.00	27.50
	ATOM	1856	CG	GLU A 238	30.116	40.813	48.320	1.00	18.83
	ATOM	1857	CD	GLU A 238	28.902	40.297	47.596	1.00	41.67
	ATOM	1858	OE1	GLU A 238	27.848	40.909	47.464	1.00	33.59
	ATOM	1859	OE2	GLU A 238	29.085	39.089	47.138	1.00	46.30
15	ATOM	1860	N	SER A 239	31.203	40.973	51.772	1.00	24.44
	ATOM	1861	CA	SER A 239	32.045	39.957	52.387	1.00	24.60
	ATOM	1862	C	SER A 239	31.245	39.060	53.344	1.00	35.72
	ATOM	1863	O	SER A 239	31.379	37.830	53.360	1.00	35.25
	ATOM	1864	CB	SER A 239	33.231	40.601	53.074	1.00	29.14
20	ATOM	1865	OG	SER A 239	32.747	41.590	53.961	1.00	54.60
	ATOM	1866	N	MET A 240	30.382	39.703	54.154	1.00	33.13
	ATOM	1867	CA	MET A 240	29.529	38.993	55.091	1.00	28.55
	ATOM	1868	C	MET A 240	28.603	38.075	54.325	1.00	35.65
	ATOM	1869	O	MET A 240	28.435	36.926	54.689	1.00	35.99
25	ATOM	1870	CB	MET A 240	28.736	39.945	55.993	1.00	26.50
	ATOM	1871	CG	MET A 240	29.691	40.675	56.910	1.00	27.57
	ATOM	1872	SD	MET A 240	28.871	41.986	57.833	1.00	32.91
	ATOM	1873	CE	MET A 240	30.040	42.085	59.183	1.00	28.47
	ATOM	1874	N	LEU A 241	28.019	38.603	53.243	1.00	32.77
30	ATOM	1875	CA	LEU A 241	27.120	37.859	52.381	1.00	29.87
	ATOM	1876	C	LEU A 241	27.848	36.615	51.878	1.00	36.76
	ATOM	1877	O	LEU A 241	27.302	35.509	51.858	1.00	36.97
	ATOM	1878	CB	LEU A 241	26.715	38.753	51.196	1.00	29.71
	ATOM	1879	CG	LEU A 241	25.283	39.289	51.237	1.00	37.68
35	ATOM	1880	CD1	LEU A 241	25.174	40.552	50.389	1.00	35.76
	ATOM	1881	CD2	LEU A 241	24.309	38.257	50.673	1.00	45.60
	ATOM	1882	N	LYS A 242	29.114	36.806	51.468	1.00	34.76
	ATOM	1883	CA	LYS A 242	29.908	35.702	50.972	1.00	33.62
	ATOM	1884	C	LYS A 242	30.072	34.690	52.039	1.00	32.18
40	ATOM	1885	O	LYS A 242	29.887	33.512	51.795	1.00	32.56
	ATOM	1886	CB	LYS A 242	31.292	36.069	50.468	1.00	38.43
	ATOM	1887	CG	LYS A 242	31.406	36.263	48.961	1.00	49.23
	ATOM	1888	CD	LYS A 242	31.160	37.721	48.536	1.00	88.36
	ATOM	1889	CE	LYS A 242	32.371	38.456	47.943	1.00	100.00
45	ATOM	1890	NZ	LYS A 242	32.033	39.411	46.862	1.00	100.00
	ATOM	1891	N	ILE A 243	30.428	35.154	53.227	1.00	30.87
	ATOM	1892	CA	ILE A 243	30.627	34.229	54.359	1.00	31.70
	ATOM	1893	C	ILE A 243	29.381	33.458	54.764	1.00	36.50
	ATOM	1894	O	ILE A 243	29.458	32.303	55.119	1.00	39.33
50	ATOM	1895	CB	ILE A 243	31.227	34.886	55.579	1.00	32.36
	ATOM	1896	CG1	ILE A 243	32.630	35.337	55.222	1.00	32.09
	ATOM	1897	CG2	ILE A 243	31.243	33.891	56.718	1.00	28.26
	ATOM	1898	CD1	ILE A 243	33.035	36.578	55.981	1.00	20.09
	ATOM	1899	N	ALA A 244	28.237	34.120	54.708	1.00	32.10
55	ATOM	1900	CA	ALA A 244	26.968	33.519	55.066	1.00	32.95
	ATOM	1901	C	ALA A 244	26.600	32.392	54.127	1.00	36.35
	ATOM	1902	O	ALA A 244	26.074	31.358	54.546	1.00	36.88
	ATOM	1903	CB	ALA A 244	25.858	34.576	55.123	1.00	34.02
	ATOM	1904	N	GLU A 245	26.890	32.617	52.846	1.00	31.20
60	ATOM	1905	CA	GLU A 245	26.614	31.635	51.818	1.00	29.26
	ATOM	1906	C	GLU A 245	27.360	30.354	52.092	1.00	35.18
	ATOM	1907	O	GLU A 245	26.849	29.276	51.800	1.00	36.21
	ATOM	1908	CB	GLU A 245	26.908	32.177	50.421	1.00	30.22
	ATOM	1909	CG	GLU A 245	25.701	32.938	49.842	1.00	39.79
	ATOM	1910	CD	GLU A 245	26.026	33.564	48.529	1.00	51.91

	ATOM	1911	OE1	GLU	A	245	26.945	34.351	48.358	1.00	34.19
	ATOM	1912	OE2	GLU	A	245	25.246	33.142	47.585	1.00	47.48
	ATOM	1913	N	ASP	A	246	28.570	30.484	52.680	1.00	32.29
5	ATOM	1914	CA	ASP	A	246	29.417	29.350	53.033	1.00	30.70
	ATOM	1915	C	ASP	A	246	28.848	28.645	54.230	1.00	35.47
	ATOM	1916	O	ASP	A	246	28.881	27.417	54.347	1.00	37.08
	ATOM	1917	CB	ASP	A	246	30.873	29.717	53.355	1.00	33.17
	ATOM	1918	CG	ASP	A	246	31.709	28.473	53.413	1.00	64.49
10	ATOM	1919	OD1	ASP	A	246	31.934	27.789	52.437	1.00	67.15
	ATOM	1920	OD2	ASP	A	246	32.118	28.167	54.622	1.00	79.01
	ATOM	1921	N	LEU	A	247	28.323	29.434	55.134	1.00	33.59
	ATOM	1922	CA	LEU	A	247	27.731	28.868	56.334	1.00	36.70
	ATOM	1923	C	LEU	A	247	26.355	28.208	56.083	1.00	35.92
15	ATOM	1924	O	LEU	A	247	26.060	27.110	56.551	1.00	30.77
	ATOM	1925	CB	LEU	A	247	27.562	29.954	57.435	1.00	38.34
	ATOM	1926	CG	LEU	A	247	28.732	30.100	58.394	1.00	44.30
	ATOM	1927	CD1	LEU	A	247	29.341	28.738	58.641	1.00	48.20
	ATOM	1928	CD2	LEU	A	247	29.779	31.013	57.815	1.00	35.25
20	ATOM	1929	N	GLY	A	248	25.471	28.887	55.353	1.00	34.97
	ATOM	1930	CA	GLY	A	248	24.160	28.315	55.181	1.00	36.00
	ATOM	1931	C	GLY	A	248	23.754	27.976	53.778	1.00	37.99
	ATOM	1932	O	GLY	A	248	22.637	27.524	53.526	1.00	38.13
	ATOM	1933	N	GLY	A	249	24.637	28.158	52.849	1.00	30.74
25	ATOM	1934	CA	GLY	A	249	24.203	27.852	51.526	1.00	30.15
	ATOM	1935	C	GLY	A	249	23.918	29.131	50.759	1.00	38.91
	ATOM	1936	O	GLY	A	249	24.126	30.240	51.238	1.00	41.32
	ATOM	1937	N	PRO	A	250	23.453	28.946	49.547	1.00	38.93
	ATOM	1938	CA	PRO	A	250	23.173	30.021	48.639	1.00	38.03
30	ATOM	1939	C	PRO	A	250	22.203	31.078	49.096	1.00	42.17
	ATOM	1940	O	PRO	A	250	21.258	30.823	49.840	1.00	45.20
	ATOM	1941	CB	PRO	A	250	22.663	29.357	47.352	1.00	39.18
	ATOM	1942	CG	PRO	A	250	22.952	27.864	47.436	1.00	41.01
	ATOM	1943	CD	PRO	A	250	23.396	27.610	48.865	1.00	38.57
35	ATOM	1944	N	TYR	A	251	22.486	32.275	48.600	1.00	35.37
	ATOM	1945	CA	TYR	A	251	21.692	33.461	48.817	1.00	34.87
	ATOM	1946	C	TYR	A	251	20.740	33.479	47.649	1.00	39.55
	ATOM	1947	O	TYR	A	251	21.125	33.794	46.535	1.00	42.57
	ATOM	1948	CB	TYR	A	251	22.540	34.759	48.790	1.00	35.07
40	ATOM	1949	CG	TYR	A	251	21.711	35.980	49.119	1.00	35.25
	ATOM	1950	CD1	TYR	A	251	21.341	36.229	50.441	1.00	33.14
	ATOM	1951	CD2	TYR	A	251	21.260	36.846	48.121	1.00	37.98
	ATOM	1952	CE1	TYR	A	251	20.575	37.341	50.781	1.00	28.05
	ATOM	1953	CE2	TYR	A	251	20.492	37.967	48.443	1.00	40.05
45	ATOM	1954	CZ	TYR	A	251	20.160	38.213	49.777	1.00	42.84
	ATOM	1955	OH	TYR	A	251	19.409	39.307	50.112	1.00	39.70
	ATOM	1956	N	VAL	A	252	19.510	33.102	47.914	1.00	32.21
	ATOM	1957	CA	VAL	A	252	18.495	33.003	46.899	1.00	30.05
	ATOM	1958	C	VAL	A	252	17.708	34.279	46.631	1.00	38.47
50	ATOM	1959	O	VAL	A	252	17.000	34.340	45.640	1.00	40.65
	ATOM	1960	CB	VAL	A	252	17.560	31.845	47.253	1.00	31.27
	ATOM	1961	CG1	VAL	A	252	18.378	30.605	47.643	1.00	28.15
	ATOM	1962	CG2	VAL	A	252	16.614	32.234	48.405	1.00	30.93
	ATOM	1963	N	TRP	A	253	17.800	35.292	47.504	1.00	32.44
55	ATOM	1964	CA	TRP	A	253	17.041	36.509	47.309	1.00	30.93
	ATOM	1965	C	TRP	A	253	17.468	37.341	46.119	1.00	43.56
	ATOM	1966	O	TRP	A	253	16.690	38.119	45.568	1.00	46.70
	ATOM	1967	CB	TRP	A	253	16.898	37.302	48.606	1.00	29.65
	ATOM	1968	CG	TRP	A	253	16.364	36.369	49.625	1.00	30.19
60	ATOM	1969	CD1	TRP	A	253	17.086	35.546	50.413	1.00	32.81
	ATOM	1970	CD2	TRP	A	253	14.989	36.110	49.913	1.00	29.63
	ATOM	1971	NE1	TRP	A	253	16.251	34.794	51.194	1.00	30.69
	ATOM	1972	CE2	TRP	A	253	14.955	35.128	50.912	1.00	31.50
	ATOM	1973	CE3	TRP	A	253	13.789	36.637	49.450	1.00	30.18
	ATOM	1974	CZ2	TRP	A	253	13.746	34.657	51.433	1.00	30.31

5	ATOM	1975	CZ3	TRP	A	253	12.600	36.164	49.958	1.00	31.14
	ATOM	1976	CH2	TRP	A	253	12.579	35.176	50.946	1.00	31.37
	ATOM	1977	N	GLY	A	254	18.697	37.182	45.675	1.00	42.35
	ATOM	1978	CA	GLY	A	254	19.101	37.944	44.509	1.00	41.34
	ATOM	1979	C	GLY	A	254	19.875	39.192	44.858	1.00	45.47
10	ATOM	1980	O	GLY	A	254	21.079	39.236	44.671	1.00	45.89
	ATOM	1981	N	GLN	A	255	19.160	40.210	45.351	1.00	41.86
	ATOM	1982	CA	GLN	A	255	19.746	41.488	45.675	1.00	38.67
	ATOM	1983	C	GLN	A	255	19.576	41.776	47.153	1.00	40.18
	ATOM	1984	O	GLN	A	255	18.494	41.811	47.659	1.00	38.67
15	ATOM	1985	CB	GLN	A	255	19.023	42.552	44.836	1.00	37.82
	ATOM	1986	CG	GLN	A	255	19.455	43.979	45.169	1.00	50.17
	ATOM	1987	CD	GLN	A	255	20.618	44.368	44.283	1.00	62.88
	ATOM	1988	OE1	GLN	A	255	21.104	43.612	43.463	1.00	55.76
	ATOM	1989	NE2	GLN	A	255	21.057	45.625	44.479	1.00	34.97
20	ATOM	1990	N	TYR	A	256	20.716	41.900	47.866	1.00	33.01
	ATOM	1991	CA	TYR	A	256	20.651	42.361	49.258	1.00	28.69
	ATOM	1992	C	TYR	A	256	20.891	43.854	49.329	1.00	26.72
	ATOM	1993	O	TYR	A	256	21.963	44.321	49.225	1.00	24.22
	ATOM	1994	CB	TYR	A	256	21.743	41.629	50.075	1.00	29.99
25	ATOM	1995	CG	TYR	A	256	21.567	41.867	51.556	1.00	35.47
	ATOM	1996	CD1	TYR	A	256	20.582	41.200	52.250	1.00	35.76
	ATOM	1997	CD2	TYR	A	256	22.405	42.746	52.239	1.00	37.52
	ATOM	1998	CE1	TYR	A	256	20.436	41.396	53.599	1.00	25.80
	ATOM	1999	CE2	TYR	A	256	22.255	42.946	53.588	1.00	39.10
30	ATOM	2000	CZ	TYR	A	256	21.283	42.275	54.268	1.00	31.78
	ATOM	2001	OH	TYR	A	256	21.153	42.433	55.631	1.00	37.35
	ATOM	2002	N	ASP	A	257	19.834	44.613	49.463	1.00	23.26
	ATOM	2003	CA	ASP	A	257	20.077	46.027	49.621	1.00	23.47
	ATOM	2004	C	ASP	A	257	19.977	46.444	51.071	1.00	35.90
35	ATOM	2005	O	ASP	A	257	19.729	45.661	51.967	1.00	39.48
	ATOM	2006	CB	ASP	A	257	19.073	46.803	48.758	1.00	24.13
	ATOM	2007	CG	ASP	A	257	19.689	47.030	47.388	1.00	38.50
	ATOM	2008	OD1	ASP	A	257	20.843	46.675	47.220	1.00	42.61
	ATOM	2009	OD2	ASP	A	257	19.020	47.555	46.517	1.00	29.02
40	ATOM	2010	N	LEU	A	258	20.370	47.661	51.386	1.00	30.86
	ATOM	2011	CA	LEU	A	258	20.306	48.159	52.735	1.00	27.50
	ATOM	2012	C	LEU	A	258	19.526	49.466	52.765	1.00	36.37
	ATOM	2013	O	LEU	A	258	19.620	50.302	51.840	1.00	37.98
	ATOM	2014	CB	LEU	A	258	21.727	48.442	53.274	1.00	24.71
45	ATOM	2015	CG	LEU	A	258	22.552	47.191	53.491	1.00	31.13
	ATOM	2016	CD1	LEU	A	258	23.913	47.567	54.043	1.00	30.89
	ATOM	2017	CD2	LEU	A	258	21.854	46.282	54.500	1.00	33.65
	ATOM	2018	N	LEU	A	259	18.762	49.632	53.838	1.00	29.87
	ATOM	2019	CA	LEU	A	259	18.006	50.849	54.052	1.00	28.43
50	ATOM	2020	C	LEU	A	259	18.283	51.453	55.446	1.00	31.30
	ATOM	2021	O	LEU	A	259	18.055	50.819	56.477	1.00	31.19
	ATOM	2022	CB	LEU	A	259	16.500	50.809	53.693	1.00	27.63
	ATOM	2023	CG	LEU	A	259	15.706	51.980	54.298	1.00	31.51
	ATOM	2024	CD1	LEU	A	259	16.026	53.300	53.605	1.00	32.32
55	ATOM	2025	CD2	LEU	A	259	14.212	51.731	54.253	1.00	26.87
	ATOM	2026	N	VAL	A	260	18.807	52.683	55.447	1.00	25.88
	ATOM	2027	CA	VAL	A	260	19.105	53.435	56.638	1.00	25.99
	ATOM	2028	C	VAL	A	260	17.896	54.336	56.796	1.00	34.83
	ATOM	2029	O	VAL	A	260	17.647	55.187	55.959	1.00	41.92
60	ATOM	2030	CB	VAL	A	260	20.390	54.234	56.408	1.00	29.97
	ATOM	2031	CG1	VAL	A	260	20.701	55.179	57.592	1.00	32.08
	ATOM	2032	CG2	VAL	A	260	21.563	53.295	56.130	1.00	26.15
	ATOM	2033	N	LEU	A	261	17.098	54.120	57.815	1.00	28.41
	ATOM	2034	CA	LEU	A	261	15.865	54.878	58.024	1.00	25.52
	ATOM	2035	C	LEU	A	261	16.016	56.054	58.948	1.00	29.42
	ATOM	2036	O	LEU	A	261	17.090	56.300	59.489	1.00	29.96
	ATOM	2037	CB	LEU	A	261	14.874	53.921	58.706	1.00	25.70
	ATOM	2038	CG	LEU	A	261	14.387	52.877	57.740	1.00	33.14

	ATOM	2039	CD1	LEU	A	261	15.161	51.571	57.929	1.00	32.73
	ATOM	2040	CD2	LEU	A	261	12.900	52.686	57.935	1.00	43.74
	ATOM	2041	N	PRO	A	262	14.903	56.758	59.142	1.00	28.52
5	ATOM	2042	CA	PRO	A	262	14.894	57.870	60.047	1.00	28.50
	ATOM	2043	C	PRO	A	262	15.152	57.294	61.432	1.00	35.36
	ATOM	2044	O	PRO	A	262	14.866	56.124	61.683	1.00	34.52
	ATOM	2045	CB	PRO	A	262	13.512	58.512	59.971	1.00	29.19
	ATOM	2046	CG	PRO	A	262	12.707	57.719	58.964	1.00	34.34
10	ATOM	2047	CD	PRO	A	262	13.581	56.575	58.492	1.00	30.63
	ATOM	2048	N	PRO	A	263	15.706	58.105	62.327	1.00	31.50
	ATOM	2049	CA	PRO	A	263	16.060	57.657	63.673	1.00	28.77
	ATOM	2050	C	PRO	A	263	14.966	57.021	64.493	1.00	29.15
	ATOM	2051	O	PRO	A	263	15.256	56.335	65.434	1.00	26.36
15	ATOM	2052	CB	PRO	A	263	16.652	58.867	64.392	1.00	29.16
	ATOM	2053	CG	PRO	A	263	16.851	59.954	63.335	1.00	31.55
	ATOM	2054	CD	PRO	A	263	15.994	59.558	62.138	1.00	29.17
	ATOM	2055	N	SER	A	264	13.712	57.258	64.143	1.00	33.87
	ATOM	2056	CA	SER	A	264	12.578	56.703	64.864	1.00	33.81
20	ATOM	2057	C	SER	A	264	12.403	55.223	64.604	1.00	37.36
	ATOM	2058	O	SER	A	264	11.529	54.570	65.201	1.00	39.61
	ATOM	2059	CB	SER	A	264	11.280	57.423	64.576	1.00	35.61
	ATOM	2060	OG	SER	A	264	10.955	57.276	63.201	1.00	53.45
	ATOM	2061	N	PHE	A	265	13.213	54.684	63.710	1.00	29.00
25	ATOM	2062	CA	PHE	A	265	13.136	53.256	63.453	1.00	28.56
	ATOM	2063	C	PHE	A	265	13.260	52.491	64.787	1.00	28.49
	ATOM	2064	O	PHE	A	265	14.208	52.675	65.533	1.00	27.36
	ATOM	2065	CB	PHE	A	265	14.200	52.833	62.454	1.00	31.40
	ATOM	2066	CG	PHE	A	265	13.875	51.458	62.028	1.00	34.51
30	ATOM	2067	CD1	PHE	A	265	12.601	51.174	61.543	1.00	35.11
	ATOM	2068	CD2	PHE	A	265	14.814	50.435	62.156	1.00	38.94
	ATOM	2069	CE1	PHE	A	265	12.282	49.876	61.154	1.00	37.42
	ATOM	2070	CE2	PHE	A	265	14.511	49.131	61.772	1.00	42.65
	ATOM	2071	CZ	PHE	A	265	13.236	48.860	61.274	1.00	40.14
35	ATOM	2072	N	PRO	A	266	12.272	51.650	65.128	1.00	24.06
	ATOM	2073	CA	PRO	A	266	12.249	50.945	66.419	1.00	20.62
	ATOM	2074	C	PRO	A	266	13.231	49.794	66.701	1.00	29.34
	ATOM	2075	O	PRO	A	266	13.343	49.364	67.847	1.00	28.17
	ATOM	2076	CB	PRO	A	266	10.808	50.463	66.593	1.00	19.16
40	ATOM	2077	CG	PRO	A	266	10.076	50.686	65.281	1.00	21.07
	ATOM	2078	CD	PRO	A	266	11.046	51.355	64.325	1.00	19.44
	ATOM	2079	N	TYR	A	267	13.922	49.280	65.676	1.00	27.23
	ATOM	2080	CA	TYR	A	267	14.849	48.160	65.817	1.00	25.74
	ATOM	2081	C	TYR	A	267	16.181	48.454	65.189	1.00	32.57
45	ATOM	2082	O	TYR	A	267	16.281	49.316	64.324	1.00	32.48
	ATOM	2083	CB	TYR	A	267	14.298	46.903	65.121	1.00	25.07
	ATOM	2084	CG	TYR	A	267	12.968	46.502	65.674	1.00	24.45
	ATOM	2085	CD1	TYR	A	267	12.915	45.765	66.856	1.00	27.05
	ATOM	2086	CD2	TYR	A	267	11.776	46.851	65.037	1.00	22.15
50	ATOM	2087	CE1	TYR	A	267	11.697	45.387	67.419	1.00	25.01
	ATOM	2088	CE2	TYR	A	267	10.548	46.496	65.596	1.00	19.09
	ATOM	2089	CZ	TYR	A	267	10.510	45.767	66.786	1.00	17.98
	ATOM	2090	OH	TYR	A	267	9.302	45.416	67.353	1.00	19.51
	ATOM	2091	N	GLY	A	268	17.196	47.698	65.627	1.00	30.22
55	ATOM	2092	CA	GLY	A	268	18.547	47.826	65.114	1.00	27.29
	ATOM	2093	C	GLY	A	268	18.485	47.620	63.614	1.00	29.82
	ATOM	2094	O	GLY	A	268	19.136	48.297	62.836	1.00	32.99
	ATOM	2095	N	GLY	A	269	17.637	46.676	63.228	1.00	23.19
	ATOM	2096	CA	GLY	A	269	17.393	46.320	61.853	1.00	21.62
60	ATOM	2097	C	GLY	A	269	16.187	45.402	61.777	1.00	27.53
	ATOM	2098	O	GLY	A	269	15.681	44.948	62.820	1.00	20.14
	ATOM	2099	N	MET	A	270	15.735	45.154	60.528	1.00	27.81
	ATOM	2100	CA	MET	A	270	14.615	44.267	60.176	1.00	25.61
	ATOM	2101	C	MET	A	270	14.956	43.585	58.874	1.00	33.56
	ATOM	2102	O	MET	A	270	15.221	44.247	57.867	1.00	34.67

	ATOM	2103	CB	MET	A	270	13.247	44.936	60.028	1.00	26.07
	ATOM	2104	CG	MET	A	270	12.195	43.937	59.602	1.00	28.81
	ATOM	2105	SD	MET	A	270	11.875	42.742	60.929	1.00	37.39
	ATOM	2106	CE	MET	A	270	10.720	41.621	60.082	1.00	35.30
5	ATOM	2107	N	GLU	A	271	14.995	42.263	58.904	1.00	32.20
	ATOM	2108	CA	GLU	A	271	15.393	41.459	57.753	1.00	33.32
	ATOM	2109	C	GLU	A	271	14.419	41.382	56.567	1.00	40.86
	ATOM	2110	O	GLU	A	271	14.087	40.285	56.107	1.00	42.02
10	ATOM	2111	CB	GLU	A	271	15.802	40.054	58.230	1.00	35.05
	ATOM	2112	CG	GLU	A	271	14.607	39.218	58.760	1.00	33.55
	ATOM	2113	CD	GLU	A	271	14.291	39.428	60.219	1.00	25.52
	ATOM	2114	OE1	GLU	A	271	14.586	40.436	60.844	1.00	37.23
	ATOM	2115	OE2	GLU	A	271	13.699	38.393	60.757	1.00	25.86
	ATOM	2116	N	ASN	A	272	13.978	42.535	56.052	1.00	35.34
15	ATOM	2117	CA	ASN	A	272	13.057	42.544	54.928	1.00	33.26
	ATOM	2118	C	ASN	A	272	13.787	42.048	53.702	1.00	34.47
	ATOM	2119	O	ASN	A	272	14.811	42.613	53.351	1.00	33.64
	ATOM	2120	CB	ASN	A	272	12.441	43.947	54.719	1.00	30.65
20	ATOM	2121	CG	ASN	A	272	11.667	44.453	55.935	1.00	42.50
	ATOM	2122	OD1	ASN	A	272	11.908	45.554	56.475	1.00	47.09
	ATOM	2123	ND2	ASN	A	272	10.716	43.661	56.371	1.00	24.31
	ATOM	2124	N	PRO	A	273	13.281	40.983	53.078	1.00	29.63
	ATOM	2125	CA	PRO	A	273	13.935	40.373	51.910	1.00	28.47
	ATOM	2126	C	PRO	A	273	14.303	41.345	50.819	1.00	30.43
25	ATOM	2127	O	PRO	A	273	13.457	42.089	50.372	1.00	31.65
	ATOM	2128	CB	PRO	A	273	12.991	39.305	51.381	1.00	30.16
	ATOM	2129	CG	PRO	A	273	11.829	39.237	52.365	1.00	36.65
	ATOM	2130	CD	PRO	A	273	11.927	40.440	53.310	1.00	30.84
30	ATOM	2131	N	CYS	A	274	15.571	41.333	50.431	1.00	27.40
	ATOM	2132	CA	CYS	A	274	16.069	42.206	49.373	1.00	28.17
	ATOM	2133	C	CYS	A	274	16.327	43.604	49.860	1.00	27.35
	ATOM	2134	O	CYS	A	274	17.114	44.345	49.248	1.00	28.53
	ATOM	2135	CB	CYS	A	274	15.121	42.347	48.145	1.00	32.00
35	ATOM	2136	SG	CYS	A	274	14.659	40.798	47.340	1.00	38.42
	ATOM	2137	N	LEU	A	275	15.658	43.972	50.947	1.00	26.20
	ATOM	2138	CA	LEU	A	275	15.789	45.315	51.535	1.00	29.54
	ATOM	2139	C	LEU	A	275	15.857	45.279	53.059	1.00	32.52
	ATOM	2140	O	LEU	A	275	14.859	45.250	53.772	1.00	32.44
40	ATOM	2141	CB	LEU	A	275	14.657	46.253	51.005	1.00	28.58
	ATOM	2142	CG	LEU	A	275	14.847	47.735	51.239	1.00	26.78
	ATOM	2143	CD1	LEU	A	275	16.191	48.183	50.698	1.00	21.90
	ATOM	2144	CD2	LEU	A	275	13.712	48.478	50.554	1.00	31.48
	ATOM	2145	N	THR	A	276	17.062	45.244	53.570	1.00	29.67
45	ATOM	2146	CA	THR	A	276	17.225	45.198	54.996	1.00	30.47
	ATOM	2147	C	THR	A	276	17.120	46.624	55.597	1.00	34.60
	ATOM	2148	O	THR	A	276	17.766	47.588	55.129	1.00	31.01
	ATOM	2149	CB	THR	A	276	18.508	44.397	55.387	1.00	30.98
	ATOM	2150	OG1	THR	A	276	18.224	43.030	55.512	1.00	42.01
50	ATOM	2151	CG2	THR	A	276	19.124	44.835	56.694	1.00	29.43
	ATOM	2152	N	PHE	A	277	16.280	46.759	56.622	1.00	27.69
	ATOM	2153	CA	PHE	A	277	16.164	48.034	57.274	1.00	28.92
	ATOM	2154	C	PHE	A	277	17.184	48.065	58.403	1.00	36.07
	ATOM	2155	O	PHE	A	277	17.337	47.088	59.131	1.00	34.57
55	ATOM	2156	CB	PHE	A	277	14.791	48.265	57.901	1.00	30.17
	ATOM	2157	CG	PHE	A	277	13.774	48.458	56.848	1.00	30.72
	ATOM	2158	CD1	PHE	A	277	14.011	47.966	55.568	1.00	30.73
	ATOM	2159	CD2	PHE	A	277	12.573	49.114	57.105	1.00	30.61
	ATOM	2160	CE1	PHE	A	277	13.072	48.135	54.552	1.00	29.30
60	ATOM	2161	CE2	PHE	A	277	11.619	49.276	56.101	1.00	32.26
	ATOM	2162	CZ	PHE	A	277	11.862	48.772	54.824	1.00	27.48
	ATOM	2163	N	VAL	A	278	17.864	49.186	58.562	1.00	32.97
	ATOM	2164	CA	VAL	A	278	18.839	49.338	59.614	1.00	32.66
	ATOM	2165	C	VAL	A	278	18.696	50.698	60.248	1.00	37.01
	ATOM	2166	O	VAL	A	278	18.251	51.635	59.599	1.00	37.16

	ATOM	2167	CB	VAL	A	278	20.246	49.088	59.109	1.00	36.51
	ATOM	2168	CG1	VAL	A	278	20.173	47.967	58.086	1.00	37.40
	ATOM	2169	CG2	VAL	A	278	20.791	50.356	58.444	1.00	34.87
5	ATOM	2170	N	THR	A	279	19.066	50.778	61.515	1.00	32.36
	ATOM	2171	CA	THR	A	279	18.948	51.994	62.264	1.00	31.03
	ATOM	2172	C	THR	A	279	20.121	52.883	62.035	1.00	37.42
	ATOM	2173	O	THR	A	279	21.243	52.397	61.920	1.00	39.87
	ATOM	2174	CB	THR	A	279	18.885	51.695	63.759	1.00	31.39
10	ATOM	2175	OG1	THR	A	279	19.110	52.895	64.472	1.00	34.21
	ATOM	2176	CG2	THR	A	279	19.989	50.706	64.083	1.00	23.69
	ATOM	2177	N	PRO	A	280	19.845	54.187	62.000	1.00	30.07
	ATOM	2178	CA	PRO	A	280	20.903	55.132	61.802	1.00	27.00
	ATOM	2179	C	PRO	A	280	21.823	55.110	63.005	1.00	30.60
15	ATOM	2180	O	PRO	A	280	22.951	55.588	62.934	1.00	30.20
	ATOM	2181	CB	PRO	A	280	20.249	56.497	61.601	1.00	26.23
	ATOM	2182	CG	PRO	A	280	18.769	56.337	61.889	1.00	28.07
	ATOM	2183	CD	PRO	A	280	18.499	54.848	61.984	1.00	26.11
	ATOM	2184	N	THR	A	281	21.348	54.509	64.112	1.00	27.82
20	ATOM	2185	CA	THR	A	281	22.199	54.426	65.302	1.00	27.48
	ATOM	2186	C	THR	A	281	23.372	53.523	65.073	1.00	31.37
	ATOM	2187	O	THR	A	281	24.226	53.385	65.944	1.00	31.93
	ATOM	2188	CB	THR	A	281	21.499	54.016	66.601	1.00	21.45
	ATOM	2189	OG1	THR	A	281	21.021	52.681	66.524	1.00	33.18
25	ATOM	2190	CG2	THR	A	281	20.388	54.994	66.874	1.00	9.89
	ATOM	2191	N	LEU	A	282	23.378	52.881	63.913	1.00	25.29
	ATOM	2192	CA	LEU	A	282	24.473	51.993	63.586	1.00	24.04
	ATOM	2193	C	LEU	A	282	25.682	52.790	63.049	1.00	34.74
	ATOM	2194	O	LEU	A	282	26.787	52.279	62.884	1.00	34.84
30	ATOM	2195	CB	LEU	A	282	24.063	51.038	62.464	1.00	22.14
	ATOM	2196	CG	LEU	A	282	23.104	49.916	62.819	1.00	26.88
	ATOM	2197	CD1	LEU	A	282	23.312	48.809	61.791	1.00	27.77
	ATOM	2198	CD2	LEU	A	282	23.322	49.404	64.249	1.00	21.75
	ATOM	2199	N	LEU	A	283	25.465	54.063	62.744	1.00	32.05
35	ATOM	2200	CA	LEU	A	283	26.501	54.903	62.159	1.00	31.43
	ATOM	2201	C	LEU	A	283	27.659	55.324	63.055	1.00	41.94
	ATOM	2202	O	LEU	A	283	27.907	56.525	63.196	1.00	49.19
	ATOM	2203	CB	LEU	A	283	25.861	56.117	61.418	1.00	29.55
	ATOM	2204	CG	LEU	A	283	24.720	55.661	60.488	1.00	32.94
40	ATOM	2205	CD1	LEU	A	283	23.933	56.811	59.869	1.00	33.48
	ATOM	2206	CD2	LEU	A	283	25.232	54.716	59.409	1.00	28.39
	ATOM	2207	N	ALA	A	284	28.387	54.370	63.638	1.00	33.18
	ATOM	2208	CA	ALA	A	284	29.488	54.728	64.532	1.00	30.20
	ATOM	2209	C	ALA	A	284	30.655	55.492	63.922	1.00	31.97
45	ATOM	2210	O	ALA	A	284	31.411	56.165	64.642	1.00	31.40
	ATOM	2211	CB	ALA	A	284	29.973	53.544	65.336	1.00	29.60
	ATOM	2212	N	GLY	A	285	30.801	55.371	62.605	1.00	27.10
	ATOM	2213	CA	GLY	A	285	31.882	56.018	61.867	1.00	29.77
	ATOM	2214	C	GLY	A	285	33.174	55.194	61.910	1.00	39.25
50	ATOM	2215	O	GLY	A	285	34.264	55.649	61.544	1.00	41.21
	ATOM	2216	N	ASP	A	286	33.022	53.951	62.363	1.00	34.57
	ATOM	2217	CA	ASP	A	286	34.144	53.057	62.473	1.00	32.57
	ATOM	2218	C	ASP	A	286	33.805	51.625	62.130	1.00	31.59
	ATOM	2219	O	ASP	A	286	34.609	50.743	62.325	1.00	29.27
55	ATOM	2220	CB	ASP	A	286	34.812	53.163	63.860	1.00	34.65
	ATOM	2221	CG	ASP	A	286	34.081	52.447	64.945	1.00	41.93
	ATOM	2222	OD1	ASP	A	286	33.008	51.893	64.765	1.00	45.21
	ATOM	2223	OD2	ASP	A	286	34.714	52.492	66.087	1.00	35.67
	ATOM	2224	N	LYS	A	287	32.590	51.395	61.641	1.00	29.46
60	ATOM	2225	CA	LYS	A	287	32.199	50.038	61.272	1.00	31.62
	ATOM	2226	C	LYS	A	287	31.976	49.060	62.437	1.00	37.91
	ATOM	2227	O	LYS	A	287	31.761	47.879	62.240	1.00	37.91
	ATOM	2228	CB	LYS	A	287	33.215	49.447	60.304	1.00	32.17
	ATOM	2229	CG	LYS	A	287	33.510	50.358	59.119	1.00	51.60
	ATOM	2230	CD	LYS	A	287	33.960	49.601	57.877	1.00	50.74



	ATOM	2231	CE	LYS	A	287	35.290	50.105	57.328	1.00	63.80
	ATOM	2232	NZ	LYS	A	287	35.167	50.866	56.069	1.00	71.91
	ATOM	2233	N	SER	A	288	32.168	49.575	63.647	1.00	31.58
5	ATOM	2234	CA	SER	A	288	32.079	48.737	64.810	1.00	27.15
	ATOM	2235	C	SER	A	288	30.742	48.137	65.142	1.00	36.08
	ATOM	2236	O	SER	A	288	30.676	47.318	66.057	1.00	37.87
	ATOM	2237	CB	SER	A	288	32.618	49.463	66.005	1.00	16.31
	ATOM	2238	OG	SER	A	288	31.659	50.443	66.312	1.00	29.71
10	ATOM	2239	N	LEU	A	289	29.669	48.529	64.460	1.00	29.34
	ATOM	2240	CA	LEU	A	289	28.351	47.979	64.794	1.00	24.70
	ATOM	2241	C	LEU	A	289	27.792	47.105	63.686	1.00	32.97
	ATOM	2242	O	LEU	A	289	26.591	46.766	63.648	1.00	30.35
	ATOM	2243	CB	LEU	A	289	27.385	49.090	65.191	1.00	21.45
15	ATOM	2244	CG	LEU	A	289	27.954	49.887	66.347	1.00	22.99
	ATOM	2245	CD1	LEU	A	289	26.881	50.769	66.950	1.00	20.66
	ATOM	2246	CD2	LEU	A	289	28.381	48.881	67.394	1.00	29.65
	ATOM	2247	N	SER	A	290	28.723	46.753	62.801	1.00	31.21
	ATOM	2248	CA	SER	A	290	28.453	45.941	61.645	1.00	29.89
	ATOM	2249	C	SER	A	290	27.861	44.582	62.006	1.00	30.57
20	ATOM	2250	O	SER	A	290	27.299	43.872	61.153	1.00	29.73
	ATOM	2251	CB	SER	A	290	29.704	45.800	60.783	1.00	29.27
	ATOM	2252	OG	SER	A	290	30.470	44.725	61.266	1.00	38.77
	ATOM	2253	N	ASN	A	291	27.980	44.207	63.282	1.00	26.55
25	ATOM	2254	CA	ASN	A	291	27.449	42.909	63.706	1.00	25.78
	ATOM	2255	C	ASN	A	291	26.006	42.773	63.355	1.00	30.89
	ATOM	2256	O	ASN	A	291	25.576	41.702	62.975	1.00	29.73
	ATOM	2257	CB	ASN	A	291	27.725	42.503	65.157	1.00	28.48
	ATOM	2258	CG	ASN	A	291	26.910	43.313	66.119	1.00	33.33
30	ATOM	2259	OD1	ASN	A	291	27.065	44.529	66.198	1.00	34.48
	ATOM	2260	ND2	ASN	A	291	26.001	42.653	66.818	1.00	28.96
	ATOM	2261	N	VAL	A	292	25.277	43.885	63.476	1.00	30.68
	ATOM	2262	CA	VAL	A	292	23.865	43.924	63.142	1.00	30.27
	ATOM	2263	C	VAL	A	292	23.667	43.619	61.669	1.00	32.61
35	ATOM	2264	O	VAL	A	292	22.644	43.082	61.255	1.00	33.31
	ATOM	2265	CB	VAL	A	292	23.288	45.289	63.505	1.00	35.13
	ATOM	2266	CG1	VAL	A	292	21.877	45.486	62.946	1.00	33.48
	ATOM	2267	CG2	VAL	A	292	23.328	45.478	65.014	1.00	35.02
	ATOM	2268	N	ILE	A	293	24.653	43.975	60.861	1.00	27.92
40	ATOM	2269	CA	ILE	A	293	24.527	43.685	59.461	1.00	28.71
	ATOM	2270	C	ILE	A	293	24.658	42.159	59.296	1.00	35.03
	ATOM	2271	O	ILE	A	293	23.860	41.475	58.624	1.00	38.34
	ATOM	2272	CB	ILE	A	293	25.554	44.438	58.606	1.00	33.84
	ATOM	2273	CG1	ILE	A	293	25.608	45.952	58.898	1.00	34.55
45	ATOM	2274	CG2	ILE	A	293	25.305	44.186	57.121	1.00	36.50
	ATOM	2275	CD1	ILE	A	293	24.265	46.680	58.808	1.00	30.49
	ATOM	2276	N	ALA	A	294	25.668	41.584	59.934	1.00	23.76
	ATOM	2277	CA	ALA	A	294	25.836	40.138	59.809	1.00	19.95
	ATOM	2278	C	ALA	A	294	24.559	39.409	60.165	1.00	27.33
50	ATOM	2279	O	ALA	A	294	24.183	38.422	59.505	1.00	25.48
	ATOM	2280	CB	ALA	A	294	26.984	39.644	60.688	1.00	19.24
	ATOM	2281	N	HIS	A	295	23.917	39.934	61.244	1.00	27.63
	ATOM	2282	CA	HIS	A	295	22.666	39.414	61.797	1.00	26.83
	ATOM	2283	C	HIS	A	295	21.611	39.383	60.734	1.00	28.61
55	ATOM	2284	O	HIS	A	295	21.169	38.301	60.348	1.00	25.72
	ATOM	2285	CB	HIS	A	295	22.148	40.175	63.028	1.00	27.98
	ATOM	2286	CG	HIS	A	295	20.937	39.534	63.657	1.00	31.62
	ATOM	2287	ND1	HIS	A	295	21.047	38.675	64.763	1.00	32.66
	ATOM	2288	CD2	HIS	A	295	19.602	39.643	63.338	1.00	30.92
60	ATOM	2289	CE1	HIS	A	295	19.802	38.298	65.088	1.00	30.14
	ATOM	2290	NE2	HIS	A	295	18.916	38.860	64.254	1.00	30.24
	ATOM	2291	N	GLU	A	296	21.257	40.590	60.251	1.00	27.23
	ATOM	2292	CA	GLU	A	296	20.266	40.749	59.195	1.00	25.98
	ATOM	2293	C	GLU	A	296	20.533	39.790	58.056	1.00	32.73
	ATOM	2294	O	GLU	A	296	19.628	39.081	57.561	1.00	31.88

	ATOM	2295	CB	GLU	A	296	20.046	42.203	58.728	1.00	24.55
	ATOM	2296	CG	GLU	A	296	19.892	43.148	59.936	1.00	23.16
	ATOM	2297	CD	GLU	A	296	18.939	42.632	60.991	1.00	53.50
5	ATOM	2298	OE1	GLU	A	296	17.964	41.956	60.700	1.00	23.99
	ATOM	2299	OE2	GLU	A	296	19.237	43.006	62.233	1.00	32.77
	ATOM	2300	N	ILE	A	297	21.803	39.745	57.675	1.00	25.37
	ATOM	2301	CA	ILE	A	297	22.195	38.870	56.599	1.00	22.64
	ATOM	2302	C	ILE	A	297	21.812	37.445	56.859	1.00	27.47
10	ATOM	2303	O	ILE	A	297	21.175	36.799	56.048	1.00	26.25
	ATOM	2304	CB	ILE	A	297	23.672	38.963	56.302	1.00	24.19
	ATOM	2305	CG1	ILE	A	297	23.920	40.140	55.355	1.00	25.28
	ATOM	2306	CG2	ILE	A	297	24.079	37.686	55.626	1.00	20.77
	ATOM	2307	CD1	ILE	A	297	25.325	40.705	55.435	1.00	16.26
15	ATOM	2308	N	SER	A	298	22.226	36.947	58.012	1.00	28.23
	ATOM	2309	CA	SER	A	298	21.939	35.569	58.377	1.00	25.04
	ATOM	2310	C	SER	A	298	20.467	35.235	58.298	1.00	26.21
	ATOM	2311	O	SER	A	298	20.118	34.097	58.000	1.00	26.30
	ATOM	2312	CB	SER	A	298	22.520	35.209	59.714	1.00	27.82
20	ATOM	2313	OG	SER	A	298	23.890	35.552	59.714	1.00	35.98
	ATOM	2314	N	HIS	A	299	19.599	36.230	58.562	1.00	22.17
	ATOM	2315	CA	HIS	A	299	18.205	36.092	58.719	1.00	22.77
	ATOM	2316	C	HIS	A	299	17.614	35.710	57.387	1.00	29.10
	ATOM	2317	O	HIS	A	299	16.553	35.162	57.290	1.00	31.50
25	ATOM	2318	CB	HIS	A	299	17.662	37.432	59.200	1.00	24.67
	ATOM	2319	CG	HIS	A	299	17.053	37.338	60.602	1.00	29.10
	ATOM	2320	ND1	HIS	A	299	16.190	36.368	60.975	1.00	30.70
	ATOM	2321	CD2	HIS	A	299	17.196	38.233	61.667	1.00	32.39
	ATOM	2322	CE1	HIS	A	299	15.811	36.675	62.233	1.00	30.41
30	ATOM	2323	NE2	HIS	A	299	16.397	37.783	62.674	1.00	31.74
	ATOM	2324	N	SER	A	300	18.356	36.048	56.315	1.00	23.31
	ATOM	2325	CA	SER	A	300	17.942	35.581	55.010	1.00	24.24
	ATOM	2326	C	SER	A	300	17.879	34.050	54.977	1.00	34.13
	ATOM	2327	O	SER	A	300	17.075	33.463	54.305	1.00	33.28
35	ATOM	2328	CB	SER	A	300	18.941	36.092	53.965	1.00	27.31
	ATOM	2329	OG	SER	A	300	18.947	37.519	53.962	1.00	49.96
	ATOM	2330	N	TRP	A	301	18.773	33.411	55.752	1.00	33.09
	ATOM	2331	CA	TRP	A	301	18.702	31.969	55.829	1.00	31.84
	ATOM	2332	C	TRP	A	301	17.740	31.511	56.895	1.00	32.15
40	ATOM	2333	O	TRP	A	301	16.764	30.876	56.620	1.00	27.05
	ATOM	2334	CB	TRP	A	301	20.095	31.429	56.082	1.00	30.16
	ATOM	2335	CG	TRP	A	301	20.791	31.421	54.801	1.00	32.02
	ATOM	2336	CD1	TRP	A	301	20.787	30.393	53.859	1.00	35.05
	ATOM	2337	CD2	TRP	A	301	21.496	32.520	54.202	1.00	30.84
45	ATOM	2338	NE1	TRP	A	301	21.415	30.732	52.722	1.00	33.29
	ATOM	2339	CE2	TRP	A	301	21.886	32.112	52.921	1.00	33.44
	ATOM	2340	CE3	TRP	A	301	21.811	33.790	54.631	1.00	32.65
	ATOM	2341	CZ2	TRP	A	301	22.577	32.970	52.108	1.00	32.21
	ATOM	2342	CZ3	TRP	A	301	22.503	34.652	53.812	1.00	36.10
50	ATOM	2343	CH2	TRP	A	301	22.888	34.239	52.544	1.00	36.83
	ATOM	2344	N	THR	A	302	18.042	31.864	58.146	1.00	31.77
	ATOM	2345	CA	THR	A	302	17.125	31.488	59.215	1.00	33.55
	ATOM	2346	C	THR	A	302	16.276	32.690	59.695	1.00	36.35
	ATOM	2347	O	THR	A	302	16.759	33.590	60.330	1.00	36.56
55	ATOM	2348	CB	THR	A	302	17.963	30.920	60.366	1.00	31.04
	ATOM	2349	OG1	THR	A	302	19.047	31.807	60.639	1.00	38.50
	ATOM	2350	CG2	THR	A	302	18.544	29.555	59.967	1.00	17.10
	ATOM	2351	N	GLY	A	303	15.053	32.418	59.250	1.00	25.28
	ATOM	2352	CA	GLY	A	303	13.908	33.236	59.483	1.00	21.59
60	ATOM	2353	C	GLY	A	303	13.202	33.382	58.163	1.00	26.99
	ATOM	2354	O	GLY	A	303	12.040	33.040	57.994	1.00	26.18
	ATOM	2355	N	ASN	A	304	13.936	33.891	57.195	1.00	28.05
	ATOM	2356	CA	ASN	A	304	13.363	34.101	55.875	1.00	28.17
	ATOM	2357	C	ASN	A	304	13.141	32.839	55.056	1.00	28.99
	ATOM	2358	O	ASN	A	304	12.118	32.715	54.415	1.00	24.87

	ATOM	2359	CB	ASN	A	304	14.091	35.176	55.047	1.00	23.55
	ATOM	2360	CG	ASN	A	304	14.133	36.499	55.757	1.00	37.80
	ATOM	2361	OD1	ASN	A	304	13.630	36.613	56.892	1.00	20.66
5	ATOM	2362	ND2	ASN	A	304	14.752	37.488	55.093	1.00	24.17
	ATOM	2363	N	LEU	A	305	14.110	31.919	55.055	1.00	27.24
	ATOM	2364	CA	LEU	A	305	13.987	30.677	54.306	1.00	27.34
	ATOM	2365	C	LEU	A	305	13.218	29.665	55.121	1.00	31.29
	ATOM	2366	O	LEU	A	305	12.235	29.051	54.678	1.00	29.23
10	ATOM	2367	CB	LEU	A	305	15.371	30.119	53.967	1.00	27.62
	ATOM	2368	CG	LEU	A	305	15.805	30.593	52.603	1.00	32.23
	ATOM	2369	CD1	LEU	A	305	17.289	30.293	52.412	1.00	28.91
	ATOM	2370	CD2	LEU	A	305	14.951	29.887	51.549	1.00	41.51
	ATOM	2371	N	VAL	A	306	13.711	29.528	56.347	1.00	27.75
15	ATOM	2372	CA	VAL	A	306	13.134	28.652	57.327	1.00	29.99
	ATOM	2373	C	VAL	A	306	12.578	29.527	58.403	1.00	31.78
	ATOM	2374	O	VAL	A	306	13.306	30.217	59.110	1.00	28.32
	ATOM	2375	CB	VAL	A	306	14.092	27.593	57.827	1.00	37.24
	ATOM	2376	CG1	VAL	A	306	15.479	28.180	57.959	1.00	38.36
	ATOM	2377	CG2	VAL	A	306	13.602	27.107	59.164	1.00	37.56
20	ATOM	2378	N	THR	A	307	11.259	29.517	58.440	1.00	29.40
	ATOM	2379	CA	THR	A	307	10.499	30.358	59.320	1.00	28.14
	ATOM	2380	C	THR	A	307	9.729	29.712	60.446	1.00	34.06
	ATOM	2381	O	THR	A	307	9.029	28.706	60.277	1.00	36.72
25	ATOM	2382	CB	THR	A	307	9.474	31.115	58.460	1.00	23.03
	ATOM	2383	OG1	THR	A	307	10.124	31.811	57.422	1.00	28.56
	ATOM	2384	CG2	THR	A	307	8.665	32.068	59.336	1.00	12.55
	ATOM	2385	N	ASN	A	308	9.802	30.347	61.608	1.00	29.29
	ATOM	2386	CA	ASN	A	308	9.042	29.862	62.724	1.00	27.82
30	ATOM	2387	C	ASN	A	308	7.576	29.716	62.234	1.00	31.42
	ATOM	2388	O	ASN	A	308	7.072	30.535	61.450	1.00	32.96
	ATOM	2389	CB	ASN	A	308	9.194	30.790	63.972	1.00	23.57
	ATOM	2390	CG	ASN	A	308	8.935	32.298	63.745	1.00	30.38
	ATOM	2391	OD1	ASN	A	308	9.505	33.190	64.400	1.00	23.70
35	ATOM	2392	ND2	ASN	A	308	8.056	32.608	62.818	1.00	41.34
	ATOM	2393	N	LYS	A	309	6.890	28.658	62.640	1.00	24.10
	ATOM	2394	CA	LYS	A	309	5.502	28.433	62.230	1.00	23.40
	ATOM	2395	C	LYS	A	309	4.514	29.380	62.964	1.00	28.17
	ATOM	2396	O	LYS	A	309	3.430	29.756	62.474	1.00	22.88
40	ATOM	2397	CB	LYS	A	309	5.151	26.975	62.459	1.00	24.26
	ATOM	2398	CG	LYS	A	309	4.036	26.478	61.555	1.00	28.57
	ATOM	2399	CD	LYS	A	309	3.543	25.075	61.924	1.00	38.25
	ATOM	2400	CE	LYS	A	309	3.475	24.112	60.739	1.00	78.39
	ATOM	2401	NZ	LYS	A	309	4.389	22.953	60.849	1.00	98.22
45	ATOM	2402	N	THR	A	310	4.917	29.744	64.179	1.00	23.46
	ATOM	2403	CA	THR	A	310	4.179	30.616	65.037	1.00	22.98
	ATOM	2404	C	THR	A	310	5.142	31.336	65.922	1.00	31.43
	ATOM	2405	O	THR	A	310	6.223	30.836	66.230	1.00	31.51
	ATOM	2406	CB	THR	A	310	3.104	29.917	65.871	1.00	34.01
50	ATOM	2407	OG1	THR	A	310	3.684	29.148	66.945	1.00	27.97
	ATOM	2408	CG2	THR	A	310	2.174	29.114	64.956	1.00	24.58
	ATOM	2409	N	TRP	A	311	4.733	32.527	66.299	1.00	29.82
	ATOM	2410	CA	TRP	A	311	5.559	33.371	67.120	1.00	30.49
	ATOM	2411	C	TRP	A	311	6.044	32.692	68.381	1.00	26.99
55	ATOM	2412	O	TRP	A	311	7.015	33.101	68.971	1.00	25.15
	ATOM	2413	CB	TRP	A	311	4.933	34.768	67.320	1.00	30.34
	ATOM	2414	CG	TRP	A	311	4.706	35.412	66.001	1.00	30.63
	ATOM	2415	CD1	TRP	A	311	3.514	35.785	65.490	1.00	32.07
	ATOM	2416	CD2	TRP	A	311	5.705	35.723	65.008	1.00	31.31
60	ATOM	2417	NE1	TRP	A	311	3.703	36.335	64.250	1.00	29.97
	ATOM	2418	CE2	TRP	A	311	5.033	36.317	63.931	1.00	32.88
	ATOM	2419	CE3	TRP	A	311	7.099	35.586	64.943	1.00	31.44
	ATOM	2420	CZ2	TRP	A	311	5.721	36.771	62.804	1.00	31.56
	ATOM	2421	CZ3	TRP	A	311	7.779	36.059	63.848	1.00	30.39
	ATOM	2422	CH2	TRP	A	311	7.089	36.639	62.789	1.00	30.58

	ATOM	2423	N	ASP	A	312	5.366	31.632	68.770	1.00	27.36
	ATOM	2424	CA	ASP	A	312	5.757	30.868	69.950	1.00	27.38
	ATOM	2425	C	ASP	A	312	7.149	30.213	69.757	1.00	31.25
	ATOM	2426	O	ASP	A	312	7.826	29.802	70.718	1.00	27.07
5	ATOM	2427	CB	ASP	A	312	4.697	29.750	70.217	1.00	25.96
	ATOM	2428	CG	ASP	A	312	3.432	30.230	70.872	1.00	27.42
	ATOM	2429	OD1	ASP	A	312	3.197	31.396	71.102	1.00	28.97
	ATOM	2430	OD2	ASP	A	312	2.623	29.265	71.208	1.00	29.33
	ATOM	2431	N	HIS	A	313	7.562	30.089	68.487	1.00	25.04
10	ATOM	2432	CA	HIS	A	313	8.820	29.454	68.164	1.00	23.48
	ATOM	2433	C	HIS	A	313	9.864	30.452	67.737	1.00	25.38
	ATOM	2434	O	HIS	A	313	10.929	30.139	67.214	1.00	29.97
	ATOM	2435	CB	HIS	A	313	8.588	28.245	67.209	1.00	25.00
	ATOM	2436	CG	HIS	A	313	7.641	27.230	67.837	1.00	29.77
15	ATOM	2437	ND1	HIS	A	313	8.087	26.183	68.635	1.00	31.37
	ATOM	2438	CD2	HIS	A	313	6.279	27.152	67.808	1.00	31.31
	ATOM	2439	CE1	HIS	A	313	7.015	25.509	69.039	1.00	28.91
	ATOM	2440	NE2	HIS	A	313	5.913	26.066	68.559	1.00	29.40
	ATOM	2441	N	PHE	A	314	9.521	31.682	68.005	1.00	17.43
20	ATOM	2442	CA	PHE	A	314	10.345	32.810	67.701	1.00	17.16
	ATOM	2443	C	PHE	A	314	11.852	32.523	67.812	1.00	26.01
	ATOM	2444	O	PHE	A	314	12.669	32.922	66.963	1.00	30.40
	ATOM	2445	CB	PHE	A	314	9.908	34.056	68.517	1.00	18.63
	ATOM	2446	CG	PHE	A	314	10.592	35.351	68.113	1.00	20.10
25	ATOM	2447	CD1	PHE	A	314	10.712	35.697	66.768	1.00	21.80
	ATOM	2448	CD2	PHE	A	314	11.129	36.214	69.070	1.00	22.60
	ATOM	2449	CE1	PHE	A	314	11.337	36.890	66.400	1.00	24.74
	ATOM	2450	CE2	PHE	A	314	11.750	37.416	68.716	1.00	27.24
	ATOM	2451	CZ	PHE	A	314	11.857	37.756	67.368	1.00	24.97
30	ATOM	2452	N	TRP	A	315	12.235	31.828	68.861	1.00	19.66
	ATOM	2453	CA	TRP	A	315	13.639	31.541	69.068	1.00	17.87
	ATOM	2454	C	TRP	A	315	14.292	30.775	67.953	1.00	28.55
	ATOM	2455	O	TRP	A	315	15.518	30.769	67.830	1.00	29.23
	ATOM	2456	CB	TRP	A	315	13.860	30.842	70.362	1.00	16.03
35	ATOM	2457	CG	TRP	A	315	13.613	29.408	70.161	1.00	19.64
	ATOM	2458	CD1	TRP	A	315	12.428	28.787	70.247	1.00	22.39
	ATOM	2459	CD2	TRP	A	315	14.599	28.430	69.876	1.00	21.70
	ATOM	2460	NE1	TRP	A	315	12.597	27.457	70.033	1.00	24.22
	ATOM	2461	CE2	TRP	A	315	13.934	27.205	69.801	1.00	27.96
40	ATOM	2462	CE3	TRP	A	315	15.976	28.481	69.681	1.00	22.89
	ATOM	2463	CZ2	TRP	A	315	14.631	26.018	69.547	1.00	27.76
	ATOM	2464	CZ3	TRP	A	315	16.651	27.321	69.421	1.00	23.16
	ATOM	2465	CH2	TRP	A	315	15.991	26.108	69.341	1.00	23.94
	ATOM	2466	N	LEU	A	316	13.488	30.114	67.144	1.00	26.33
45	ATOM	2467	CA	LEU	A	316	14.092	29.400	66.067	1.00	25.44
	ATOM	2468	C	LEU	A	316	14.666	30.443	65.129	1.00	33.21
	ATOM	2469	O	LEU	A	316	15.737	30.252	64.530	1.00	37.80
	ATOM	2470	CB	LEU	A	316	13.050	28.567	65.311	1.00	24.82
	ATOM	2471	CG	LEU	A	316	12.663	27.242	65.956	1.00	27.62
50	ATOM	2472	CD1	LEU	A	316	11.574	26.552	65.106	1.00	22.30
	ATOM	2473	CD2	LEU	A	316	13.897	26.344	66.097	1.00	27.03
	ATOM	2474	N	ASN	A	317	13.931	31.555	64.997	1.00	20.55
	ATOM	2475	CA	ASN	A	317	14.354	32.624	64.115	1.00	19.34
	ATOM	2476	C	ASN	A	317	15.603	33.333	64.531	1.00	30.38
55	ATOM	2477	O	ASN	A	317	16.553	33.425	63.766	1.00	32.04
	ATOM	2478	CB	ASN	A	317	13.273	33.682	63.838	1.00	14.82
	ATOM	2479	CG	ASN	A	317	12.330	33.177	62.793	1.00	31.14
	ATOM	2480	OD1	ASN	A	317	12.151	31.966	62.657	1.00	38.42
	ATOM	2481	ND2	ASN	A	317	11.724	34.074	62.049	1.00	17.34
60	ATOM	2482	N	GLU	A	318	15.562	33.870	65.750	1.00	26.15
	ATOM	2483	CA	GLU	A	318	16.624	34.648	66.358	1.00	20.23
	ATOM	2484	C	GLU	A	318	17.860	33.884	66.816	1.00	23.53
	ATOM	2485	O	GLU	A	318	19.006	34.273	66.554	1.00	26.34
	ATOM	2486	CB	GLU	A	318	15.998	35.484	67.456	1.00	19.11

	ATOM	2487	CG	GLU	A	318	14.999	36.480	66.800	1.00	24.06
	ATOM	2488	CD	GLU	A	318	15.615	37.391	65.758	1.00	40.32
	ATOM	2489	OE1	GLU	A	318	16.833	37.559	65.612	1.00	21.24
5	ATOM	2490	OE2	GLU	A	318	14.703	38.025	65.062	1.00	24.23
	ATOM	2491	N	GLY	A	319	17.621	32.782	67.494	1.00	17.17
	ATOM	2492	CA	GLY	A	319	18.681	31.955	68.016	1.00	15.31
	ATOM	2493	C	GLY	A	319	19.673	31.601	66.953	1.00	24.07
	ATOM	2494	O	GLY	A	319	20.860	31.897	67.080	1.00	28.47
10	ATOM	2495	N	HIS	A	320	19.165	30.956	65.907	1.00	20.24
	ATOM	2496	CA	HIS	A	320	19.977	30.556	64.790	1.00	20.13
	ATOM	2497	C	HIS	A	320	20.678	31.759	64.142	1.00	24.97
	ATOM	2498	O	HIS	A	320	21.855	31.700	63.739	1.00	23.54
	ATOM	2499	CB	HIS	A	320	19.143	29.737	63.791	1.00	20.57
15	ATOM	2500	CG	HIS	A	320	18.662	28.426	64.349	1.00	22.57
	ATOM	2501	ND1	HIS	A	320	17.471	28.332	65.058	1.00	22.98
	ATOM	2502	CD2	HIS	A	320	19.217	27.176	64.286	1.00	19.52
	ATOM	2503	CE1	HIS	A	320	17.336	27.046	65.385	1.00	19.18
	ATOM	2504	NE2	HIS	A	320	18.368	26.329	64.952	1.00	18.12
20	ATOM	2505	N	THR	A	321	19.958	32.875	64.053	1.00	21.61
	ATOM	2506	CA	THR	A	321	20.543	34.056	63.478	1.00	22.16
	ATOM	2507	C	THR	A	321	21.697	34.552	64.342	1.00	27.47
	ATOM	2508	O	THR	A	321	22.789	34.825	63.836	1.00	26.64
	ATOM	2509	CB	THR	A	321	19.470	35.097	63.113	1.00	27.88
25	ATOM	2510	OG1	THR	A	321	18.403	34.392	62.523	1.00	27.92
	ATOM	2511	CG2	THR	A	321	19.999	36.088	62.087	1.00	18.05
	ATOM	2512	N	VAL	A	322	21.496	34.634	65.659	1.00	21.90
	ATOM	2513	CA	VAL	A	322	22.610	35.054	66.470	1.00	19.44
	ATOM	2514	C	VAL	A	322	23.762	34.071	66.285	1.00	24.43
30	ATOM	2515	O	VAL	A	322	24.926	34.414	66.188	1.00	21.48
	ATOM	2516	CB	VAL	A	322	22.218	35.185	67.928	1.00	20.92
	ATOM	2517	CG1	VAL	A	322	23.406	35.644	68.772	1.00	18.37
	ATOM	2518	CG2	VAL	A	322	21.093	36.200	68.048	1.00	20.01
	ATOM	2519	N	TYR	A	323	23.427	32.811	66.197	1.00	27.08
35	ATOM	2520	CA	TYR	A	323	24.446	31.803	66.013	1.00	26.26
	ATOM	2521	C	TYR	A	323	25.222	32.036	64.728	1.00	28.26
	ATOM	2522	O	TYR	A	323	26.431	31.894	64.643	1.00	27.51
	ATOM	2523	CB	TYR	A	323	23.804	30.407	66.020	1.00	25.74
	ATOM	2524	CG	TYR	A	323	24.867	29.341	65.987	1.00	26.66
40	ATOM	2525	CD1	TYR	A	323	25.539	28.957	67.150	1.00	29.09
	ATOM	2526	CD2	TYR	A	323	25.199	28.713	64.789	1.00	24.52
	ATOM	2527	CE1	TYR	A	323	26.530	27.974	67.157	1.00	22.56
	ATOM	2528	CE2	TYR	A	323	26.178	27.722	64.770	1.00	25.31
	ATOM	2529	CZ	TYR	A	323	26.846	27.370	65.944	1.00	29.19
45	ATOM	2530	OH	TYR	A	323	27.823	26.434	65.895	1.00	27.51
	ATOM	2531	N	LEU	A	324	24.497	32.408	63.702	1.00	24.82
	ATOM	2532	CA	LEU	A	324	25.135	32.638	62.439	1.00	26.04
	ATOM	2533	C	LEU	A	324	25.832	33.952	62.417	1.00	30.92
	ATOM	2534	O	LEU	A	324	26.903	34.045	61.851	1.00	33.76
50	ATOM	2535	CB	LEU	A	324	24.176	32.537	61.235	1.00	26.21
	ATOM	2536	CG	LEU	A	324	23.916	31.112	60.778	1.00	28.46
	ATOM	2537	CD1	LEU	A	324	22.752	31.109	59.791	1.00	28.95
	ATOM	2538	CD2	LEU	A	324	25.169	30.508	60.151	1.00	26.54
	ATOM	2539	N	GLU	A	325	25.234	34.976	63.033	1.00	27.04
55	ATOM	2540	CA	GLU	A	325	25.870	36.303	63.064	1.00	22.88
	ATOM	2541	C	GLU	A	325	27.282	36.210	63.624	1.00	28.76
	ATOM	2542	O	GLU	A	325	28.250	36.722	63.026	1.00	26.24
	ATOM	2543	CB	GLU	A	325	25.016	37.365	63.759	1.00	22.01
	ATOM	2544	CG	GLU	A	325	25.827	38.411	64.524	1.00	41.55
60	ATOM	2545	CD	GLU	A	325	25.035	39.040	65.646	1.00	72.11
	ATOM	2546	OE1	GLU	A	325	23.866	38.764	65.862	1.00	41.88
	ATOM	2547	OE2	GLU	A	325	25.719	39.922	66.350	1.00	67.15
	ATOM	2548	N	ARG	A	326	27.349	35.479	64.755	1.00	27.84
	ATOM	2549	CA	ARG	A	326	28.551	35.213	65.511	1.00	28.10
	ATOM	2550	C	ARG	A	326	29.604	34.457	64.771	1.00	30.90

	ATOM	2551	O	ARG	A	326	30.763	34.747	64.976	1.00	33.93
	ATOM	2552	CB	ARG	A	326	28.334	34.761	66.947	1.00	31.52
	ATOM	2553	CG	ARG	A	326	27.645	35.864	67.726	1.00	22.20
	ATOM	2554	CD	ARG	A	326	27.462	35.572	69.203	1.00	28.71
5	ATOM	2555	NE	ARG	A	326	26.727	36.673	69.830	1.00	23.82
	ATOM	2556	CZ	ARG	A	326	25.805	36.556	70.780	1.00	26.09
	ATOM	2557	NH1	ARG	A	326	25.443	35.388	71.305	1.00	23.16
	ATOM	2558	NH2	ARG	A	326	25.220	37.655	71.222	1.00	24.77
	ATOM	2559	N	HIS	A	327	29.221	33.511	63.918	1.00	29.85
10	ATOM	2560	CA	HIS	A	327	30.207	32.777	63.120	1.00	30.52
	ATOM	2561	C	HIS	A	327	30.778	33.738	62.085	1.00	35.50
	ATOM	2562	O	HIS	A	327	31.966	33.777	61.822	1.00	36.74
	ATOM	2563	CB	HIS	A	327	29.591	31.555	62.407	1.00	31.59
	ATOM	2564	CG	HIS	A	327	29.764	30.259	63.176	1.00	34.51
15	ATOM	2565	ND1	HIS	A	327	30.963	29.913	63.788	1.00	36.17
	ATOM	2566	CD2	HIS	A	327	28.875	29.263	63.432	1.00	35.58
	ATOM	2567	CE1	HIS	A	327	30.778	28.740	64.384	1.00	35.27
	ATOM	2568	NE2	HIS	A	327	29.532	28.322	64.191	1.00	35.56
	ATOM	2569	N	ILE	A	328	29.902	34.549	61.511	1.00	31.10
20	ATOM	2570	CA	ILE	A	328	30.328	35.517	60.528	1.00	31.66
	ATOM	2571	C	ILE	A	328	31.416	36.407	61.086	1.00	40.12
	ATOM	2572	O	ILE	A	328	32.451	36.615	60.465	1.00	40.81
	ATOM	2573	CB	ILE	A	328	29.175	36.379	59.998	1.00	32.94
	ATOM	2574	CG1	ILE	A	328	28.220	35.570	59.114	1.00	29.53
25	ATOM	2575	CG2	ILE	A	328	29.694	37.591	59.201	1.00	30.91
	ATOM	2576	CD1	ILE	A	328	27.119	36.463	58.535	1.00	32.98
	ATOM	2577	N	CYS	A	329	31.179	36.948	62.266	1.00	37.88
	ATOM	2578	CA	CYS	A	329	32.170	37.810	62.851	1.00	39.54
	ATOM	2579	C	CYS	A	329	33.475	37.092	63.157	1.00	40.19
30	ATOM	2580	O	CYS	A	329	34.567	37.642	62.971	1.00	38.44
	ATOM	2581	CB	CYS	A	329	31.607	38.509	64.083	1.00	42.61
	ATOM	2582	SG	CYS	A	329	30.241	39.595	63.619	1.00	48.14
	ATOM	2583	N	GLY	A	330	33.332	35.852	63.632	1.00	34.74
	ATOM	2584	CA	GLY	A	330	34.471	35.030	63.980	1.00	35.20
35	ATOM	2585	C	GLY	A	330	35.359	34.854	62.778	1.00	43.66
	ATOM	2586	O	GLY	A	330	36.581	34.857	62.891	1.00	46.79
	ATOM	2587	N	ARG	A	331	34.709	34.725	61.622	1.00	34.99
	ATOM	2588	CA	ARG	A	331	35.416	34.562	60.392	1.00	33.19
	ATOM	2589	C	ARG	A	331	36.086	35.863	60.017	1.00	40.63
40	ATOM	2590	O	ARG	A	331	37.238	35.914	59.586	1.00	44.40
	ATOM	2591	CB	ARG	A	331	34.494	34.101	59.269	1.00	31.29
	ATOM	2592	CG	ARG	A	331	33.987	32.685	59.450	1.00	47.66
	ATOM	2593	CD	ARG	A	331	34.812	31.722	58.622	1.00	70.36
	ATOM	2594	NE	ARG	A	331	34.461	31.851	57.221	1.00	80.25
45	ATOM	2595	CZ	ARG	A	331	33.615	31.023	56.628	1.00	100.00
	ATOM	2596	NH1	ARG	A	331	33.055	29.999	57.279	1.00	79.12
	ATOM	2597	NH2	ARG	A	331	33.334	31.216	55.341	1.00	89.33
	ATOM	2598	N	LEU	A	332	35.342	36.926	60.172	1.00	32.14
	ATOM	2599	CA	LEU	A	332	35.885	38.198	59.820	1.00	30.02
50	ATOM	2600	C	LEU	A	332	37.013	38.612	60.761	1.00	40.33
	ATOM	2601	O	LEU	A	332	38.084	38.972	60.286	1.00	40.10
	ATOM	2602	CB	LEU	A	332	34.772	39.262	59.822	1.00	28.20
	ATOM	2603	CG	LEU	A	332	34.451	39.896	58.469	1.00	28.82
	ATOM	2604	CD1	LEU	A	332	35.007	39.063	57.341	1.00	23.73
55	ATOM	2605	CD2	LEU	A	332	32.947	40.114	58.306	1.00	29.76
	ATOM	2606	N	PHE	A	333	36.744	38.557	62.091	1.00	37.69
	ATOM	2607	CA	PHE	A	333	37.657	38.997	63.143	1.00	34.12
	ATOM	2608	C	PHE	A	333	38.251	37.956	64.035	1.00	37.99
	ATOM	2609	O	PHE	A	333	39.015	38.293	64.925	1.00	41.67
60	ATOM	2610	CB	PHE	A	333	36.970	40.058	64.024	1.00	35.62
	ATOM	2611	CG	PHE	A	333	36.209	41.003	63.138	1.00	39.09
	ATOM	2612	CD1	PHE	A	333	36.887	41.923	62.332	1.00	43.22
	ATOM	2613	CD2	PHE	A	333	34.818	40.941	63.045	1.00	42.78
	ATOM	2614	CE1	PHE	A	333	36.205	42.781	61.464	1.00	44.14

	ATOM	2615	CE2	PHE	A	333	34.123	41.806	62.194	1.00	46.56
	ATOM	2616	CZ	PHE	A	333	34.814	42.716	61.389	1.00	43.20
	ATOM	2617	N	GLY	A	334	37.908	36.706	63.865	1.00	34.36
	ATOM	2618	CA	GLY	A	334	38.507	35.705	64.763	1.00	32.89
5	ATOM	2619	C	GLY	A	334	37.582	34.985	65.767	1.00	32.67
	ATOM	2620	O	GLY	A	334	36.641	35.540	66.340	1.00	33.48
	ATOM	2621	N	GLU	A	335	37.908	33.726	66.003	1.00	23.52
	ATOM	2622	CA	GLU	A	335	37.196	32.875	66.931	1.00	18.13
10	ATOM	2623	C	GLU	A	335	37.278	33.384	68.346	1.00	29.15
	ATOM	2624	O	GLU	A	335	36.357	33.124	69.112	1.00	34.14
	ATOM	2625	CB	GLU	A	335	37.782	31.488	66.929	1.00	17.35
	ATOM	2626	CG	GLU	A	335	37.041	30.591	67.929	1.00	32.97
	ATOM	2627	CD	GLU	A	335	35.642	30.305	67.473	1.00	46.14
	ATOM	2628	OE1	GLU	A	335	35.093	30.944	66.588	1.00	39.31
15	ATOM	2629	OE2	GLU	A	335	35.080	29.317	68.132	1.00	32.80
	ATOM	2630	N	LYS	A	336	38.370	34.077	68.706	1.00	24.53
	ATOM	2631	CA	LYS	A	336	38.468	34.609	70.061	1.00	25.38
	ATOM	2632	C	LYS	A	336	37.445	35.726	70.169	1.00	35.32
	ATOM	2633	O	LYS	A	336	36.908	36.004	71.233	1.00	38.14
20	ATOM	2634	CB	LYS	A	336	39.820	35.199	70.421	1.00	25.45
	ATOM	2635	CG	LYS	A	336	40.871	34.188	70.825	1.00	25.43
	ATOM	2636	CD	LYS	A	336	42.207	34.846	71.189	1.00	47.10
	ATOM	2637	CE	LYS	A	336	43.325	34.600	70.172	1.00	68.74
	ATOM	2638	NZ	LYS	A	336	44.566	34.072	70.767	1.00	77.62
25	ATOM	2639	N	PHE	A	337	37.174	36.364	69.029	1.00	31.52
	ATOM	2640	CA	PHE	A	337	36.186	37.442	68.967	1.00	29.34
	ATOM	2641	C	PHE	A	337	34.783	36.869	69.083	1.00	31.73
	ATOM	2642	O	PHE	A	337	33.908	37.424	69.742	1.00	35.53
	ATOM	2643	CB	PHE	A	337	36.304	38.336	67.709	1.00	30.04
30	ATOM	2644	CG	PHE	A	337	35.435	39.589	67.747	1.00	35.16
	ATOM	2645	CD1	PHE	A	337	35.468	40.459	68.843	1.00	43.88
	ATOM	2646	CD2	PHE	A	337	34.550	39.893	66.709	1.00	40.16
	ATOM	2647	CE1	PHE	A	337	34.688	41.617	68.913	1.00	46.53
	ATOM	2648	CE2	PHE	A	337	33.753	41.040	66.760	1.00	45.62
35	ATOM	2649	CZ	PHE	A	337	33.830	41.908	67.852	1.00	45.57
	ATOM	2650	N	ARG	A	338	34.566	35.733	68.452	1.00	25.52
	ATOM	2651	CA	ARG	A	338	33.266	35.119	68.508	1.00	25.23
	ATOM	2652	C	ARG	A	338	32.944	34.759	69.922	1.00	29.77
	ATOM	2653	O	ARG	A	338	31.854	35.025	70.415	1.00	31.81
40	ATOM	2654	CB	ARG	A	338	33.186	33.920	67.606	1.00	24.04
	ATOM	2655	CG	ARG	A	338	31.839	33.228	67.623	1.00	21.31
	ATOM	2656	CD	ARG	A	338	31.807	32.086	66.599	1.00	30.62
	ATOM	2657	NE	ARG	A	338	32.518	30.892	67.040	1.00	29.87
	ATOM	2658	CZ	ARG	A	338	31.919	29.781	67.466	1.00	26.37
45	ATOM	2659	NH1	ARG	A	338	30.616	29.687	67.518	1.00	20.26
	ATOM	2660	NH2	ARG	A	338	32.632	28.737	67.864	1.00	18.57
	ATOM	2661	N	HIS	A	339	33.934	34.190	70.577	1.00	25.88
	ATOM	2662	CA	HIS	A	339	33.813	33.797	71.982	1.00	25.59
	ATOM	2663	C	HIS	A	339	33.455	34.972	72.892	1.00	27.61
50	ATOM	2664	O	HIS	A	339	32.615	34.912	73.793	1.00	25.27
	ATOM	2665	CB	HIS	A	339	35.065	33.045	72.462	1.00	25.06
	ATOM	2666	CG	HIS	A	339	34.923	31.587	72.155	1.00	28.13
	ATOM	2667	ND1	HIS	A	339	35.049	30.612	73.127	1.00	30.52
	ATOM	2668	CD2	HIS	A	339	34.586	30.970	70.981	1.00	30.89
55	ATOM	2669	CE1	HIS	A	339	34.843	29.442	72.535	1.00	30.89
	ATOM	2670	NE2	HIS	A	339	34.546	29.616	71.245	1.00	31.36
	ATOM	2671	N	PHE	A	340	34.103	36.065	72.608	1.00	24.54
	ATOM	2672	CA	PHE	A	340	33.892	37.278	73.334	1.00	25.36
	ATOM	2673	C	PHE	A	340	32.452	37.762	73.216	1.00	32.47
60	ATOM	2674	O	PHE	A	340	31.822	38.222	74.190	1.00	32.78
	ATOM	2675	CB	PHE	A	340	34.876	38.309	72.801	1.00	26.03
	ATOM	2676	CG	PHE	A	340	34.654	39.671	73.346	1.00	26.47
	ATOM	2677	CD1	PHE	A	340	35.238	40.047	74.559	1.00	24.59
	ATOM	2678	CD2	PHE	A	340	33.902	40.592	72.616	1.00	28.22

5	ATOM	2679	CE1	PHE	A	340	35.063	41.330	75.072	1.00	21.58
	ATOM	2680	CE2	PHE	A	340	33.715	41.879	73.115	1.00	29.13
	ATOM	2681	CZ	PHE	A	340	34.280	42.225	74.345	1.00	25.28
	ATOM	2682	N	ASN	A	341	31.944	37.663	72.004	1.00	28.41
	ATOM	2683	CA	ASN	A	341	30.600	38.084	71.728	1.00	29.60
10	ATOM	2684	C	ASN	A	341	29.665	37.110	72.379	1.00	38.52
	ATOM	2685	O	ASN	A	341	28.699	37.511	73.029	1.00	42.88
	ATOM	2686	CB	ASN	A	341	30.322	38.274	70.224	1.00	30.01
	ATOM	2687	CG	ASN	A	341	31.159	39.374	69.587	1.00	52.80
	ATOM	2688	OD1	ASN	A	341	31.528	39.284	68.404	1.00	60.88
15	ATOM	2689	ND2	ASN	A	341	31.442	40.427	70.359	1.00	41.02
	ATOM	2690	N	ALA	A	342	29.994	35.826	72.239	1.00	28.24
	ATOM	2691	CA	ALA	A	342	29.195	34.800	72.877	1.00	26.95
	ATOM	2692	C	ALA	A	342	29.013	35.134	74.393	1.00	35.98
	ATOM	2693	O	ALA	A	342	27.877	35.261	74.897	1.00	35.09
20	ATOM	2694	CB	ALA	A	342	29.837	33.422	72.671	1.00	25.45
	ATOM	2695	N	LEU	A	343	30.153	35.304	75.122	1.00	29.16
	ATOM	2696	CA	LEU	A	343	30.162	35.633	76.560	1.00	22.58
	ATOM	2697	C	LEU	A	343	29.310	36.854	76.831	1.00	27.48
	ATOM	2698	O	LEU	A	343	28.452	36.821	77.696	1.00	32.73
25	ATOM	2699	CB	LEU	A	343	31.583	35.786	77.147	1.00	18.70
	ATOM	2700	CG	LEU	A	343	31.647	35.693	78.671	1.00	20.08
	ATOM	2701	CD1	LEU	A	343	30.842	34.510	79.204	1.00	17.76
	ATOM	2702	CD2	LEU	A	343	33.091	35.522	79.111	1.00	21.94
	ATOM	2703	N	GLY	A	344	29.512	37.936	76.080	1.00	22.60
30	ATOM	2704	CA	GLY	A	344	28.670	39.146	76.278	1.00	24.15
	ATOM	2705	C	GLY	A	344	27.157	38.824	76.136	1.00	31.38
	ATOM	2706	O	GLY	A	344	26.339	39.260	76.943	1.00	32.44
	ATOM	2707	N	GLY	A	345	26.806	38.017	75.094	1.00	22.79
	ATOM	2708	CA	GLY	A	345	25.451	37.587	74.801	1.00	19.88
35	ATOM	2709	C	GLY	A	345	24.787	36.994	76.034	1.00	28.37
	ATOM	2710	O	GLY	A	345	23.632	37.294	76.325	1.00	27.56
	ATOM	2711	N	TRP	A	346	25.547	36.153	76.765	1.00	25.41
	ATOM	2712	CA	TRP	A	346	25.082	35.520	77.994	1.00	23.90
	ATOM	2713	C	TRP	A	346	24.825	36.541	79.071	1.00	31.54
40	ATOM	2714	O	TRP	A	346	23.957	36.379	79.924	1.00	29.57
	ATOM	2715	CB	TRP	A	346	26.122	34.556	78.562	1.00	21.53
	ATOM	2716	CG	TRP	A	346	25.680	33.880	79.837	1.00	21.92
	ATOM	2717	CD1	TRP	A	346	25.933	34.335	81.079	1.00	24.36
	ATOM	2718	CD2	TRP	A	346	25.004	32.597	80.010	1.00	20.97
45	ATOM	2719	NE1	TRP	A	346	25.450	33.453	82.008	1.00	23.95
	ATOM	2720	CE2	TRP	A	346	24.859	32.388	81.391	1.00	24.13
	ATOM	2721	CE3	TRP	A	346	24.488	31.611	79.144	1.00	21.46
	ATOM	2722	CZ2	TRP	A	346	24.225	31.244	81.921	1.00	22.89
	ATOM	2723	CZ3	TRP	A	346	23.872	30.477	79.662	1.00	22.03
50	ATOM	2724	CH2	TRP	A	346	23.747	30.286	81.046	1.00	21.87
	ATOM	2725	N	GLY	A	347	25.627	37.593	79.039	1.00	29.66
	ATOM	2726	CA	GLY	A	347	25.465	38.625	80.042	1.00	29.03
	ATOM	2727	C	GLY	A	347	24.156	39.333	79.844	1.00	33.01
	ATOM	2728	O	GLY	A	347	23.491	39.647	80.799	1.00	34.17
55	ATOM	2729	N	GLU	A	348	23.797	39.574	78.581	1.00	30.57
	ATOM	2730	CA	GLU	A	348	22.535	40.220	78.250	1.00	29.17
	ATOM	2731	C	GLU	A	348	21.423	39.282	78.664	1.00	31.25
	ATOM	2732	O	GLU	A	348	20.373	39.663	79.142	1.00	33.71
	ATOM	2733	CB	GLU	A	348	22.432	40.606	76.757	1.00	30.33
60	ATOM	2734	CG	GLU	A	348	23.432	41.715	76.336	1.00	49.41
	ATOM	2735	CD	GLU	A	348	23.209	43.088	76.964	1.00	73.39
	ATOM	2736	OE1	GLU	A	348	22.295	43.846	76.656	1.00	71.22
	ATOM	2737	OE2	GLU	A	348	24.119	43.395	77.857	1.00	44.23
	ATOM	2738	N	LEU	A	349	21.682	38.011	78.541	1.00	27.36
	ATOM	2739	CA	LEU	A	349	20.677	37.081	78.976	1.00	26.89
	ATOM	2740	C	LEU	A	349	20.429	37.250	80.485	1.00	24.87
	ATOM	2741	O	LEU	A	349	19.299	37.403	80.914	1.00	28.31
	ATOM	2742	CB	LEU	A	349	20.984	35.630	78.529	1.00	27.18



	ATOM	2743	CG	LEU	A	349	19.943	34.565	78.942	1.00	32.45
	ATOM	2744	CD1	LEU	A	349	18.611	34.704	78.154	1.00	30.09
	ATOM	2745	CD2	LEU	A	349	20.541	33.169	78.749	1.00	27.10
5	ATOM	2746	N	GLN	A	350	21.460	37.255	81.315	1.00	14.78
	ATOM	2747	CA	GLN	A	350	21.188	37.428	82.727	1.00	18.51
	ATOM	2748	C	GLN	A	350	20.442	38.722	82.953	1.00	25.53
	ATOM	2749	O	GLN	A	350	19.495	38.833	83.737	1.00	28.35
	ATOM	2750	CB	GLN	A	350	22.469	37.369	83.536	1.00	22.22
10	ATOM	2751	CG	GLN	A	350	23.512	36.426	82.919	1.00	22.37
	ATOM	2752	CD	GLN	A	350	24.871	36.673	83.547	1.00	34.49
	ATOM	2753	OE1	GLN	A	350	25.261	35.932	84.417	1.00	24.01
	ATOM	2754	NE2	GLN	A	350	25.588	37.727	83.127	1.00	36.58
	ATOM	2755	N	ASN	A	351	20.838	39.696	82.201	1.00	22.64
15	ATOM	2756	CA	ASN	A	351	20.163	40.960	82.273	1.00	26.10
	ATOM	2757	C	ASN	A	351	18.661	40.780	82.083	1.00	37.49
	ATOM	2758	O	ASN	A	351	17.890	41.098	82.977	1.00	41.41
	ATOM	2759	CB	ASN	A	351	20.769	42.021	81.341	1.00	20.74
	ATOM	2760	CG	ASN	A	351	22.118	42.477	81.847	1.00	23.25
20	ATOM	2761	OD1	ASN	A	351	22.692	41.875	82.771	1.00	26.88
	ATOM	2762	ND2	ASN	A	351	22.644	43.530	81.247	1.00	32.93
	ATOM	2763	N	SER	A	352	18.228	40.252	80.938	1.00	32.84
	ATOM	2764	CA	SER	A	352	16.784	40.041	80.715	1.00	34.27
	ATOM	2765	C	SER	A	352	16.107	39.135	81.784	1.00	31.72
25	ATOM	2766	O	SER	A	352	14.927	39.266	82.189	1.00	28.64
	ATOM	2767	CB	SER	A	352	16.503	39.531	79.301	1.00	42.57
	ATOM	2768	OG	SER	A	352	17.506	39.979	78.407	1.00	49.17
	ATOM	2769	N	VAL	A	353	16.874	38.188	82.247	1.00	21.90
	ATOM	2770	CA	VAL	A	353	16.322	37.351	83.234	1.00	22.13
30	ATOM	2771	C	VAL	A	353	16.068	38.122	84.516	1.00	36.22
	ATOM	2772	O	VAL	A	353	14.958	38.076	85.052	1.00	37.69
	ATOM	2773	CB	VAL	A	353	17.137	36.070	83.419	1.00	20.84
	ATOM	2774	CG1	VAL	A	353	16.632	35.256	84.634	1.00	15.06
	ATOM	2775	CG2	VAL	A	353	16.968	35.284	82.105	1.00	20.93
35	ATOM	2776	N	LYS	A	354	17.086	38.847	85.002	1.00	30.67
	ATOM	2777	CA	LYS	A	354	16.880	39.587	86.221	1.00	31.71
	ATOM	2778	C	LYS	A	354	15.660	40.474	86.098	1.00	36.17
	ATOM	2779	O	LYS	A	354	14.808	40.582	86.980	1.00	35.80
	ATOM	2780	CB	LYS	A	354	18.099	40.396	86.624	1.00	35.28
40	ATOM	2781	CG	LYS	A	354	17.841	41.303	87.818	1.00	51.51
	ATOM	2782	CD	LYS	A	354	19.038	41.405	88.749	1.00	60.46
	ATOM	2783	CE	LYS	A	354	19.198	42.780	89.383	1.00	50.09
	ATOM	2784	NZ	LYS	A	354	20.596	43.133	89.657	1.00	63.77
	ATOM	2785	N	THR	A	355	15.608	41.108	84.962	1.00	32.63
45	ATOM	2786	CA	THR	A	355	14.562	42.025	84.610	1.00	34.03
	ATOM	2787	C	THR	A	355	13.129	41.422	84.578	1.00	42.11
	ATOM	2788	O	THR	A	355	12.216	42.006	85.154	1.00	40.96
	ATOM	2789	CB	THR	A	355	14.974	42.736	83.308	1.00	41.11
	ATOM	2790	OG1	THR	A	355	16.071	43.615	83.542	1.00	29.85
50	ATOM	2791	CG2	THR	A	355	13.798	43.438	82.656	1.00	45.50
	ATOM	2792	N	PHE	A	356	12.895	40.273	83.908	1.00	33.89
	ATOM	2793	CA	PHE	A	356	11.556	39.729	83.860	1.00	29.29
	ATOM	2794	C	PHE	A	356	11.209	39.070	85.147	1.00	31.93
	ATOM	2795	O	PHE	A	356	10.089	39.152	85.642	1.00	33.85
55	ATOM	2796	CB	PHE	A	356	11.460	38.645	82.785	1.00	33.30
	ATOM	2797	CG	PHE	A	356	11.187	39.196	81.416	1.00	36.54
	ATOM	2798	CD1	PHE	A	356	10.106	40.054	81.224	1.00	42.38
	ATOM	2799	CD2	PHE	A	356	11.985	38.858	80.320	1.00	38.62
	ATOM	2800	CE1	PHE	A	356	9.831	40.596	79.968	1.00	44.75
60	ATOM	2801	CE2	PHE	A	356	11.723	39.384	79.055	1.00	43.46
	ATOM	2802	CZ	PHE	A	356	10.649	40.261	78.890	1.00	43.86
	ATOM	2803	N	GLY	A	357	12.212	38.386	85.661	1.00	30.41
	ATOM	2804	CA	GLY	A	357	12.152	37.564	86.864	1.00	29.17
	ATOM	2805	C	GLY	A	357	12.446	36.100	86.438	1.00	28.92
	ATOM	2806	O	GLY	A	357	12.008	35.642	85.372	1.00	27.33

	ATOM	2807	N	GLU	A	358	13.211	35.382	87.243	1.00	21.27
	ATOM	2808	CA	GLU	A	358	13.590	34.040	86.898	1.00	23.10
	ATOM	2809	C	GLU	A	358	12.424	33.104	86.747	1.00	31.53
	ATOM	2810	O	GLU	A	358	12.581	31.972	86.294	1.00	30.92
5	ATOM	2811	CB	GLU	A	358	14.596	33.473	87.880	1.00	25.36
	ATOM	2812	CG	GLU	A	358	14.011	33.436	89.301	1.00	38.73
	ATOM	2813	CD	GLU	A	358	15.011	33.037	90.345	1.00	56.34
	ATOM	2814	OE1	GLU	A	358	16.026	32.446	90.071	1.00	50.55
	ATOM	2815	OE2	GLU	A	358	14.678	33.403	91.564	1.00	75.65
10	ATOM	2816	N	THR	A	359	11.246	33.542	87.139	1.00	27.87
	ATOM	2817	CA	THR	A	359	10.154	32.625	86.970	1.00	25.66
	ATOM	2818	C	THR	A	359	9.236	33.152	85.906	1.00	25.96
	ATOM	2819	O	THR	A	359	8.247	32.528	85.533	1.00	25.58
	ATOM	2820	CB	THR	A	359	9.423	32.341	88.253	1.00	25.00
15	ATOM	2821	OG1	THR	A	359	8.908	33.565	88.692	1.00	33.10
	ATOM	2822	CG2	THR	A	359	10.406	31.785	89.273	1.00	14.43
	ATOM	2823	N	HIS	A	360	9.602	34.310	85.407	1.00	20.75
	ATOM	2824	CA	HIS	A	360	8.837	34.902	84.363	1.00	22.77
	ATOM	2825	C	HIS	A	360	8.823	34.034	83.130	1.00	35.30
20	ATOM	2826	O	HIS	A	360	9.858	33.611	82.620	1.00	37.42
	ATOM	2827	CB	HIS	A	360	9.294	36.291	83.982	1.00	23.18
	ATOM	2828	CG	HIS	A	360	8.207	36.908	83.219	1.00	27.05
	ATOM	2829	ND1	HIS	A	360	7.532	38.009	83.691	1.00	29.34
	ATOM	2830	CD2	HIS	A	360	7.651	36.545	82.059	1.00	29.91
25	ATOM	2831	CE1	HIS	A	360	6.596	38.315	82.806	1.00	27.94
	ATOM	2832	NE2	HIS	A	360	6.651	37.440	81.812	1.00	29.60
	ATOM	2833	N	PRO	A	361	7.606	33.817	82.666	1.00	32.40
	ATOM	2834	CA	PRO	A	361	7.301	32.999	81.519	1.00	29.46
	ATOM	2835	C	PRO	A	361	7.862	33.478	80.224	1.00	30.59
30	ATOM	2836	O	PRO	A	361	7.907	32.737	79.248	1.00	33.00
	ATOM	2837	CB	PRO	A	361	5.770	32.963	81.478	1.00	30.74
	ATOM	2838	CG	PRO	A	361	5.311	33.172	82.927	1.00	34.96
	ATOM	2839	CD	PRO	A	361	6.463	33.869	83.627	1.00	31.82
	ATOM	2840	N	PHE	A	362	8.289	34.712	80.179	1.00	26.32
35	ATOM	2841	CA	PHE	A	362	8.823	35.173	78.933	1.00	25.68
	ATOM	2842	C	PHE	A	362	10.261	34.781	78.829	1.00	29.73
	ATOM	2843	O	PHE	A	362	10.906	35.131	77.870	1.00	32.02
	ATOM	2844	CB	PHE	A	362	8.643	36.677	78.723	1.00	28.12
	ATOM	2845	CG	PHE	A	362	7.194	37.105	78.629	1.00	30.03
40	ATOM	2846	CD1	PHE	A	362	6.204	36.276	78.098	1.00	30.92
	ATOM	2847	CD2	PHE	A	362	6.804	38.372	79.051	1.00	32.04
	ATOM	2848	CE1	PHE	A	362	4.864	36.655	77.998	1.00	26.59
	ATOM	2849	CE2	PHE	A	362	5.470	38.773	78.952	1.00	32.40
	ATOM	2850	CZ	PHE	A	362	4.495	37.920	78.435	1.00	26.37
45	ATOM	2851	N	THR	A	363	10.730	34.049	79.843	1.00	27.22
	ATOM	2852	CA	THR	A	363	12.102	33.575	79.943	1.00	27.52
	ATOM	2853	C	THR	A	363	12.251	32.132	79.504	1.00	29.28
	ATOM	2854	O	THR	A	363	13.331	31.560	79.524	1.00	29.42
	ATOM	2855	CB	THR	A	363	12.697	33.777	81.360	1.00	31.67
50	ATOM	2856	OG1	THR	A	363	12.279	32.745	82.218	1.00	26.17
	ATOM	2857	CG2	THR	A	363	12.278	35.118	81.930	1.00	31.62
	ATOM	2858	N	LYS	A	364	11.148	31.530	79.113	1.00	23.08
	ATOM	2859	CA	LYS	A	364	11.174	30.160	78.664	1.00	20.50
	ATOM	2860	C	LYS	A	364	11.556	30.270	77.217	1.00	28.83
55	ATOM	2861	O	LYS	A	364	11.139	31.239	76.570	1.00	29.80
	ATOM	2862	CB	LYS	A	364	9.766	29.584	78.667	1.00	23.55
	ATOM	2863	CG	LYS	A	364	9.252	29.134	80.022	1.00	40.85
	ATOM	2864	CD	LYS	A	364	7.761	29.369	80.162	1.00	44.83
	ATOM	2865	CE	LYS	A	364	7.131	28.492	81.224	1.00	66.38
60	ATOM	2866	NZ	LYS	A	364	6.063	27.638	80.691	1.00	91.70
	ATOM	2867	N	LEU	A	365	12.332	29.328	76.698	1.00	23.57
	ATOM	2868	CA	LEU	A	365	12.699	29.420	75.312	1.00	23.95
	ATOM	2869	C	LEU	A	365	11.414	29.419	74.445	1.00	35.57
	ATOM	2870	O	LEU	A	365	11.166	30.369	73.708	1.00	34.58

	ATOM	2871	CB	LEU	A	365	13.702	28.303	75.021	1.00	25.08
	ATOM	2872	CG	LEU	A	365	14.456	28.372	73.702	1.00	31.15
	ATOM	2873	CD1	LEU	A	365	14.987	29.778	73.466	1.00	33.16
5	ATOM	2874	CD2	LEU	A	365	15.609	27.353	73.781	1.00	30.62
	ATOM	2875	N	VAL	A	366	10.572	28.360	74.564	1.00	35.62
	ATOM	2876	CA	VAL	A	366	9.294	28.232	73.840	1.00	32.10
	ATOM	2877	C	VAL	A	366	8.211	28.911	74.694	1.00	33.14
	ATOM	2878	O	VAL	A	366	7.982	28.470	75.808	1.00	34.20
10	ATOM	2879	CB	VAL	A	366	8.936	26.739	73.568	1.00	34.73
	ATOM	2880	CG1	VAL	A	366	7.558	26.605	72.933	1.00	34.88
	ATOM	2881	CG2	VAL	A	366	9.922	26.012	72.649	1.00	32.65
	ATOM	2882	N	VAL	A	367	7.562	29.990	74.211	1.00	28.76
	ATOM	2883	CA	VAL	A	367	6.532	30.700	74.987	1.00	28.27
15	ATOM	2884	C	VAL	A	367	5.161	30.613	74.420	1.00	30.62
	ATOM	2885	O	VAL	A	367	4.994	30.509	73.235	1.00	34.30
	ATOM	2886	CB	VAL	A	367	6.773	32.185	75.061	1.00	33.45
	ATOM	2887	CG1	VAL	A	367	8.178	32.478	75.565	1.00	33.03
	ATOM	2888	CG2	VAL	A	367	6.498	32.804	73.693	1.00	33.18
20	ATOM	2889	N	ASP	A	368	4.168	30.722	75.290	1.00	29.27
	ATOM	2890	CA	ASP	A	368	2.764	30.771	74.984	1.00	27.67
	ATOM	2891	C	ASP	A	368	2.315	32.207	74.862	1.00	26.94
	ATOM	2892	O	ASP	A	368	2.283	32.975	75.830	1.00	23.11
	ATOM	2893	CB	ASP	A	368	1.990	30.073	76.100	1.00	26.80
25	ATOM	2894	CG	ASP	A	368	0.572	29.781	75.613	1.00	37.90
	ATOM	2895	OD1	ASP	A	368	0.276	30.123	74.481	1.00	38.93
	ATOM	2896	OD2	ASP	A	368	-0.215	29.217	76.380	1.00	38.59
	ATOM	2897	N	LEU	A	369	2.027	32.588	73.622	1.00	26.55
	ATOM	2898	CA	LEU	A	369	1.643	33.953	73.373	1.00	27.39
30	ATOM	2899	C	LEU	A	369	0.138	34.105	73.301	1.00	30.74
	ATOM	2900	O	LEU	A	369	-0.372	34.979	72.648	1.00	30.68
	ATOM	2901	CB	LEU	A	369	2.281	34.395	72.064	1.00	26.06
	ATOM	2902	CG	LEU	A	369	3.759	34.760	72.229	1.00	26.80
	ATOM	2903	CD1	LEU	A	369	4.343	35.415	70.994	1.00	24.30
35	ATOM	2904	CD2	LEU	A	369	4.014	35.728	73.384	1.00	21.81
	ATOM	2905	N	THR	A	370	-0.577	33.154	73.953	1.00	30.26
	ATOM	2906	CA	THR	A	370	-2.022	33.306	74.093	1.00	31.38
	ATOM	2907	C	THR	A	370	-2.355	34.519	74.941	1.00	38.62
	ATOM	2908	O	THR	A	370	-1.821	34.714	76.027	1.00	38.84
40	ATOM	2909	CB	THR	A	370	-2.601	32.056	74.750	1.00	34.04
	ATOM	2910	OG1	THR	A	370	-2.472	30.949	73.873	1.00	29.99
	ATOM	2911	CG2	THR	A	370	-4.091	32.266	75.052	1.00	26.40
	ATOM	2912	N	ASP	A	371	-3.173	35.387	74.363	1.00	37.89
	ATOM	2913	CA	ASP	A	371	-3.641	36.612	75.012	1.00	37.85
45	ATOM	2914	C	ASP	A	371	-2.557	37.636	75.255	1.00	40.92
	ATOM	2915	O	ASP	A	371	-2.784	38.625	75.933	1.00	41.63
	ATOM	2916	CB	ASP	A	371	-4.519	36.375	76.245	1.00	39.88
	ATOM	2917	CG	ASP	A	371	-5.805	35.733	75.798	1.00	51.30
	ATOM	2918	OD1	ASP	A	371	-6.373	36.072	74.761	1.00	50.39
50	ATOM	2919	OD2	ASP	A	371	-6.206	34.754	76.583	1.00	48.61
	ATOM	2920	N	ILE	A	372	-1.387	37.398	74.664	1.00	36.37
	ATOM	2921	CA	ILE	A	372	-0.259	38.283	74.817	1.00	34.61
	ATOM	2922	C	ILE	A	372	0.203	39.018	73.555	1.00	35.46
	ATOM	2923	O	ILE	A	372	0.545	38.400	72.548	1.00	36.69
55	ATOM	2924	CB	ILE	A	372	0.920	37.511	75.381	1.00	36.51
	ATOM	2925	CG1	ILE	A	372	0.658	37.195	76.842	1.00	37.01
	ATOM	2926	CG2	ILE	A	372	2.121	38.441	75.281	1.00	35.52
	ATOM	2927	CD1	ILE	A	372	1.268	38.261	77.747	1.00	54.33
	ATOM	2928	N	ASP	A	373	0.254	40.345	73.601	1.00	25.92
60	ATOM	2929	CA	ASP	A	373	0.747	41.053	72.450	1.00	23.77
	ATOM	2930	C	ASP	A	373	2.263	40.781	72.360	1.00	31.40
	ATOM	2931	O	ASP	A	373	3.040	41.002	73.305	1.00	32.80
	ATOM	2932	CB	ASP	A	373	0.408	42.543	72.519	1.00	25.08
	ATOM	2933	CG	ASP	A	373	1.064	43.356	71.418	1.00	43.24
	ATOM	2934	OD1	ASP	A	373	1.861	42.894	70.616	1.00	45.30

	ATOM	2935	OD2	ASP	A	373	0.668	44.610	71.395	1.00	38.59
	ATOM	2936	N	PRO	A	374	2.709	40.267	71.225	1.00	29.51
	ATOM	2937	CA	PRO	A	374	4.123	39.943	71.132	1.00	28.52
5	ATOM	2938	C	PRO	A	374	5.029	41.090	71.506	1.00	32.54
	ATOM	2939	O	PRO	A	374	6.019	40.905	72.217	1.00	29.62
	ATOM	2940	CB	PRO	A	374	4.390	39.421	69.714	1.00	28.88
	ATOM	2941	CG	PRO	A	374	3.028	39.278	69.032	1.00	32.27
	ATOM	2942	CD	PRO	A	374	1.966	39.786	70.008	1.00	28.84
10	ATOM	2943	N	ASP	A	375	4.660	42.257	70.981	1.00	26.85
	ATOM	2944	CA	ASP	A	375	5.357	43.511	71.154	1.00	24.25
	ATOM	2945	C	ASP	A	375	5.695	43.783	72.628	1.00	33.10
	ATOM	2946	O	ASP	A	375	6.648	44.494	72.988	1.00	30.67
	ATOM	2947	CB	ASP	A	375	4.507	44.617	70.509	1.00	24.46
	ATOM	2948	CG	ASP	A	375	4.753	44.836	69.033	1.00	30.08
15	ATOM	2949	OD1	ASP	A	375	5.703	44.393	68.411	1.00	33.47
	ATOM	2950	OD2	ASP	A	375	3.852	45.609	68.491	1.00	38.41
	ATOM	2951	N	VAL	A	376	4.885	43.161	73.477	1.00	30.21
	ATOM	2952	CA	VAL	A	376	5.001	43.232	74.904	1.00	25.40
20	ATOM	2953	C	VAL	A	376	5.879	42.106	75.431	1.00	37.27
	ATOM	2954	O	VAL	A	376	6.599	42.299	76.394	1.00	42.46
	ATOM	2955	CB	VAL	A	376	3.638	43.099	75.550	1.00	22.48
	ATOM	2956	CG1	VAL	A	376	3.799	42.533	76.975	1.00	21.25
	ATOM	2957	CG2	VAL	A	376	2.926	44.440	75.547	1.00	18.29
	ATOM	2958	N	ALA	A	377	5.811	40.905	74.831	1.00	30.48
25	ATOM	2959	CA	ALA	A	377	6.671	39.793	75.288	1.00	27.04
	ATOM	2960	C	ALA	A	377	8.149	39.911	74.797	1.00	28.15
	ATOM	2961	O	ALA	A	377	9.077	39.325	75.312	1.00	27.36
	ATOM	2962	CB	ALA	A	377	6.091	38.433	74.891	1.00	26.74
30	ATOM	2963	N	TYR	A	378	8.376	40.692	73.768	1.00	25.81
	ATOM	2964	CA	TYR	A	378	9.683	40.876	73.161	1.00	25.43
	ATOM	2965	C	TYR	A	378	10.862	41.194	74.057	1.00	30.49
	ATOM	2966	O	TYR	A	378	10.873	42.204	74.747	1.00	32.35
	ATOM	2967	CB	TYR	A	378	9.549	41.924	72.068	1.00	26.20
35	ATOM	2968	CG	TYR	A	378	10.804	42.168	71.327	1.00	19.90
	ATOM	2969	CD1	TYR	A	378	11.256	41.231	70.406	1.00	18.53
	ATOM	2970	CD2	TYR	A	378	11.536	43.331	71.543	1.00	18.47
	ATOM	2971	CE1	TYR	A	378	12.444	41.436	69.716	1.00	15.98
	ATOM	2972	CE2	TYR	A	378	12.719	43.555	70.840	1.00	18.77
40	ATOM	2973	CZ	TYR	A	378	13.161	42.609	69.920	1.00	16.37
	ATOM	2974	OH	TYR	A	378	14.309	42.811	69.212	1.00	32.30
	ATOM	2975	N	SER	A	379	11.879	40.317	73.977	1.00	23.03
	ATOM	2976	CA	SER	A	379	13.115	40.430	74.725	1.00	18.13
	ATOM	2977	C	SER	A	379	14.267	39.777	73.970	1.00	20.60
45	ATOM	2978	O	SER	A	379	14.100	39.334	72.843	1.00	18.46
	ATOM	2979	CB	SER	A	379	12.976	39.740	76.067	1.00	23.56
	ATOM	2980	OG	SER	A	379	12.805	38.329	75.883	1.00	37.26
	ATOM	2981	N	SER	A	380	15.424	39.697	74.651	1.00	23.65
	ATOM	2982	CA	SER	A	380	16.701	39.084	74.222	1.00	26.09
50	ATOM	2983	C	SER	A	380	16.669	37.571	74.457	1.00	28.37
	ATOM	2984	O	SER	A	380	17.480	36.785	73.975	1.00	30.81
	ATOM	2985	CB	SER	A	380	17.889	39.588	75.062	1.00	31.60
	ATOM	2986	OG	SER	A	380	18.036	41.000	75.033	1.00	42.48
	ATOM	2987	N	VAL	A	381	15.718	37.188	75.260	1.00	18.04
55	ATOM	2988	CA	VAL	A	381	15.595	35.812	75.598	1.00	14.91
	ATOM	2989	C	VAL	A	381	15.708	34.897	74.419	1.00	20.31
	ATOM	2990	O	VAL	A	381	16.620	34.091	74.330	1.00	27.64
	ATOM	2991	CB	VAL	A	381	14.408	35.546	76.501	1.00	16.34
	ATOM	2992	CG1	VAL	A	381	14.284	34.062	76.734	1.00	17.26
60	ATOM	2993	CG2	VAL	A	381	14.687	36.204	77.829	1.00	13.94
	ATOM	2994	N	PRO	A	382	14.797	35.005	73.489	1.00	16.53
	ATOM	2995	CA	PRO	A	382	14.886	34.139	72.324	1.00	17.21
	ATOM	2996	C	PRO	A	382	16.222	34.230	71.634	1.00	24.01
	ATOM	2997	O	PRO	A	382	16.709	33.192	71.207	1.00	27.79
	ATOM	2998	CB	PRO	A	382	13.777	34.514	71.351	1.00	17.20

	ATOM	2999	CG	PRO	A	382	13.003	35.618	72.033	1.00	18.32
	ATOM	3000	CD	PRO	A	382	13.627	35.873	73.399	1.00	12.12
	ATOM	3001	N	TYR	A	383	16.809	35.447	71.542	1.00	19.33
5	ATOM	3002	CA	TYR	A	383	18.112	35.648	70.902	1.00	19.70
	ATOM	3003	C	TYR	A	383	19.246	34.953	71.651	1.00	28.79
	ATOM	3004	O	TYR	A	383	19.980	34.117	71.104	1.00	31.38
	ATOM	3005	CB	TYR	A	383	18.468	37.135	70.894	1.00	21.02
	ATOM	3006	CG	TYR	A	383	17.593	37.968	70.011	1.00	23.86
10	ATOM	3007	CD1	TYR	A	383	16.290	38.277	70.404	1.00	28.36
	ATOM	3008	CD2	TYR	A	383	18.067	38.450	68.784	1.00	20.93
	ATOM	3009	CE1	TYR	A	383	15.473	39.054	69.576	1.00	30.88
	ATOM	3010	CE2	TYR	A	383	17.272	39.244	67.957	1.00	18.71
	ATOM	3011	CZ	TYR	A	383	15.967	39.533	68.358	1.00	25.95
15	ATOM	3012	OH	TYR	A	383	15.171	40.294	67.556	1.00	30.84
	ATOM	3013	N	GLU	A	384	19.389	35.333	72.921	1.00	20.17
	ATOM	3014	CA	GLU	A	384	20.419	34.857	73.803	1.00	17.57
	ATOM	3015	C	GLU	A	384	20.188	33.506	74.405	1.00	22.88
	ATOM	3016	O	GLU	A	384	21.151	32.775	74.669	1.00	25.65
20	ATOM	3017	CB	GLU	A	384	20.833	35.973	74.773	1.00	20.44
	ATOM	3018	CG	GLU	A	384	21.263	37.202	73.944	1.00	15.21
	ATOM	3019	CD	GLU	A	384	22.539	36.937	73.184	1.00	26.58
	ATOM	3020	OE1	GLU	A	384	23.185	35.915	73.293	1.00	17.84
	ATOM	3021	OE2	GLU	A	384	22.887	37.915	72.400	1.00	21.88
25	ATOM	3022	N	LYS	A	385	18.935	33.116	74.610	1.00	20.33
	ATOM	3023	CA	LYS	A	385	18.736	31.767	75.146	1.00	20.05
	ATOM	3024	C	LYS	A	385	18.865	30.716	74.028	1.00	27.19
	ATOM	3025	O	LYS	A	385	19.420	29.621	74.219	1.00	31.66
	ATOM	3026	CB	LYS	A	385	17.507	31.577	76.014	1.00	21.51
30	ATOM	3027	CG	LYS	A	385	17.676	30.384	76.953	1.00	22.29
	ATOM	3028	CD	LYS	A	385	16.386	29.820	77.518	1.00	19.87
	ATOM	3029	CE	LYS	A	385	16.049	30.277	78.937	1.00	31.60
	ATOM	3030	NZ	LYS	A	385	14.783	29.694	79.441	1.00	30.38
	ATOM	3031	N	GLY	A	386	18.364	31.084	72.832	1.00	20.72
35	ATOM	3032	CA	GLY	A	386	18.453	30.248	71.637	1.00	17.41
	ATOM	3033	C	GLY	A	386	19.924	30.106	71.298	1.00	20.81
	ATOM	3034	O	GLY	A	386	20.396	29.001	71.225	1.00	22.50
	ATOM	3035	N	PHE	A	387	20.683	31.228	71.163	1.00	20.30
	ATOM	3036	CA	PHE	A	387	22.137	31.158	70.900	1.00	19.92
40	ATOM	3037	C	PHE	A	387	22.840	30.263	71.905	1.00	29.09
	ATOM	3038	O	PHE	A	387	23.685	29.478	71.530	1.00	32.80

	ATOM	3063	CB	LEU	A	390	22.765	27.152	68.844	1.00	23.33
	ATOM	3064	CG	LEU	A	390	21.307	27.026	68.442	1.00	23.38
	ATOM	3065	CD1	LEU	A	390	20.986	28.025	67.334	1.00	20.84
	ATOM	3066	CD2	LEU	A	390	20.988	25.591	68.017	1.00	18.86
5	ATOM	3067	N	PHE	A	391	25.058	27.231	71.127	1.00	28.52
	ATOM	3068	CA	PHE	A	391	26.480	27.236	71.494	1.00	27.82
	ATOM	3069	C	PHE	A	391	26.813	25.992	72.312	1.00	28.67
	ATOM	3070	O	PHE	A	391	27.839	25.331	72.148	1.00	26.96
10	ATOM	3071	CB	PHE	A	391	26.834	28.455	72.341	1.00	28.60
	ATOM	3072	CG	PHE	A	391	28.296	28.786	72.283	1.00	30.53
	ATOM	3073	CD1	PHE	A	391	28.967	28.816	71.064	1.00	35.08
	ATOM	3074	CD2	PHE	A	391	29.020	29.063	73.440	1.00	36.52
	ATOM	3075	CE1	PHE	A	391	30.320	29.142	70.983	1.00	37.61
	ATOM	3076	CE2	PHE	A	391	30.378	29.383	73.382	1.00	40.61
15	ATOM	3077	CZ	PHE	A	391	31.026	29.432	72.148	1.00	37.64
	ATOM	3078	N	TYR	A	392	25.913	25.699	73.225	1.00	24.90
	ATOM	3079	CA	TYR	A	392	26.044	24.550	74.065	1.00	24.66
	ATOM	3080	C	TYR	A	392	26.106	23.298	73.186	1.00	34.30
20	ATOM	3081	O	TYR	A	392	27.058	22.558	73.268	1.00	37.51
	ATOM	3082	CB	TYR	A	392	24.821	24.501	74.967	1.00	26.39
	ATOM	3083	CG	TYR	A	392	24.631	23.181	75.678	1.00	31.99
	ATOM	3084	CD1	TYR	A	392	25.546	22.715	76.625	1.00	35.17
	ATOM	3085	CD2	TYR	A	392	23.501	22.397	75.432	1.00	32.49
	ATOM	3086	CE1	TYR	A	392	25.341	21.512	77.306	1.00	39.01
25	ATOM	3087	CE2	TYR	A	392	23.281	21.184	76.094	1.00	31.50
	ATOM	3088	CZ	TYR	A	392	24.206	20.743	77.035	1.00	34.08
	ATOM	3089	OH	TYR	A	392	23.986	19.564	77.683	1.00	36.46
	ATOM	3090	N	LEU	A	393	25.101	23.067	72.310	1.00	31.02
30	ATOM	3091	CA	LEU	A	393	25.043	21.889	71.410	1.00	29.65
	ATOM	3092	C	LEU	A	393	26.274	21.616	70.507	1.00	32.03
	ATOM	3093	O	LEU	A	393	26.664	20.468	70.267	1.00	27.90
	ATOM	3094	CB	LEU	A	393	23.758	21.905	70.552	1.00	28.85
	ATOM	3095	CG	LEU	A	393	22.489	21.688	71.375	1.00	30.33
35	ATOM	3096	CD1	LEU	A	393	21.256	22.047	70.559	1.00	27.38
	ATOM	3097	CD2	LEU	A	393	22.400	20.246	71.865	1.00	29.76
	ATOM	3098	N	GLU	A	394	26.841	22.701	69.980	1.00	30.84
	ATOM	3099	CA	GLU	A	394	28.000	22.727	69.118	1.00	30.05
	ATOM	3100	C	GLU	A	394	29.210	22.214	69.868	1.00	39.16
40	ATOM	3101	O	GLU	A	394	30.089	21.595	69.299	1.00	42.14
	ATOM	3102	CB	GLU	A	394	28.300	24.204	68.756	1.00	31.03
	ATOM	3103	CG	GLU	A	394	29.776	24.406	68.376	1.00	37.11
	ATOM	3104	CD	GLU	A	394	30.182	25.830	68.208	1.00	45.20
	ATOM	3105	OE1	GLU	A	394	29.614	26.609	67.471	1.00	56.77
	ATOM	3106	OE2	GLU	A	394	31.229	26.133	68.927	1.00	39.77
45	ATOM	3107	N	GLN	A	395	29.256	22.534	71.160	1.00	34.20
	ATOM	3108	CA	GLN	A	395	30.342	22.139	72.029	1.00	32.86
	ATOM	3109	C	GLN	A	395	30.143	20.690	72.435	1.00	38.65
	ATOM	3110	O	GLN	A	395	31.066	19.899	72.507	1.00	38.67
50	ATOM	3111	CB	GLN	A	395	30.474	23.051	73.287	1.00	33.17
	ATOM	3112	CG	GLN	A	395	30.831	24.540	72.996	1.00	13.79
	ATOM	3113	CD	GLN	A	395	31.176	25.354	74.247	1.00	37.45
	ATOM	3114	OE1	GLN	A	395	30.909	24.959	75.407	1.00	26.89
	ATOM	3115	NE2	GLN	A	395	31.758	26.523	74.010	1.00	31.99
55	ATOM	3116	N	LEU	A	396	28.903	20.352	72.682	1.00	38.68
	ATOM	3117	CA	LEU	A	396	28.514	19.015	73.083	1.00	38.49
	ATOM	3118	C	LEU	A	396	28.633	18.017	71.924	1.00	39.28
	ATOM	3119	O	LEU	A	396	29.012	16.871	72.100	1.00	42.17
	ATOM	3120	CB	LEU	A	396	27.055	19.072	73.628	1.00	37.93
60	ATOM	3121	CG	LEU	A	396	26.389	17.732	73.946	1.00	42.72
	ATOM	3122	CD1	LEU	A	396	26.436	17.489	75.445	1.00	45.42
	ATOM	3123	CD2	LEU	A	396	24.917	17.709	73.527	1.00	43.81
	ATOM	3124	N	LEU	A	397	28.303	18.456	70.730	1.00	28.48
	ATOM	3125	CA	LEU	A	397	28.337	17.595	69.589	1.00	25.49
	ATOM	3126	C	LEU	A	397	29.620	17.609	68.771	1.00	36.86

	ATOM	3127	O	LEU A 397	29.596	17.220	67.599	1.00	39.85
	ATOM	3128	CB	LEU A 397	27.156	17.924	68.686	1.00	23.73
	ATOM	3129	CG	LEU A 397	25.843	17.773	69.401	1.00	25.82
5	ATOM	3130	CD1	LEU A 397	24.740	18.559	68.669	1.00	22.99
	ATOM	3131	CD2	LEU A 397	25.525	16.272	69.452	1.00	27.30
	ATOM	3132	N	GLY A 398	30.731	18.069	69.342	1.00	33.98
	ATOM	3133	CA	GLY A 398	31.993	18.038	68.617	1.00	34.14
	ATOM	3134	C	GLY A 398	32.547	19.260	67.889	1.00	38.92
10	ATOM	3135	O	GLY A 398	33.502	19.097	67.115	1.00	39.98
	ATOM	3136	N	GLY A 399	32.001	20.457	68.105	1.00	33.01
	ATOM	3137	CA	GLY A 399	32.543	21.650	67.440	1.00	30.35
	ATOM	3138	C	GLY A 399	31.713	22.336	66.365	1.00	31.72
	ATOM	3139	O	GLY A 399	30.800	21.823	65.762	1.00	34.57
15	ATOM	3140	N	PRO A 400	32.076	23.550	66.124	1.00	33.01
	ATOM	3141	CA	PRO A 400	31.429	24.406	65.151	1.00	35.02
	ATOM	3142	C	PRO A 400	31.379	23.794	63.750	1.00	43.93
	ATOM	3143	O	PRO A 400	30.360	23.838	63.045	1.00	40.14
	ATOM	3144	CB	PRO A 400	32.293	25.672	65.111	1.00	35.73
20	ATOM	3145	CG	PRO A 400	33.539	25.411	65.948	1.00	38.03
	ATOM	3146	CD	PRO A 400	33.423	24.010	66.517	1.00	33.92
	ATOM	3147	N	GLU A 401	32.512	23.237	63.345	1.00	43.85
	ATOM	3148	CA	GLU A 401	32.597	22.620	62.042	1.00	42.92
	ATOM	3149	C	GLU A 401	31.491	21.587	61.878	1.00	37.92
25	ATOM	3150	O	GLU A 401	30.810	21.588	60.866	1.00	33.79
	ATOM	3151	CB	GLU A 401	33.996	22.034	61.789	1.00	45.93
	ATOM	3152	CG	GLU A 401	34.578	22.372	60.398	1.00	69.62
	ATOM	3153	CD	GLU A 401	35.603	21.373	59.911	1.00	100.00
	ATOM	3154	OE1	GLU A 401	36.702	21.236	60.427	1.00	100.00
30	ATOM	3155	OE2	GLU A 401	35.195	20.689	58.865	1.00	93.16
	ATOM	3156	N	ILE A 402	31.317	20.720	62.902	1.00	34.58
	ATOM	3157	CA	ILE A 402	30.281	19.681	62.922	1.00	33.20
	ATOM	3158	C	ILE A 402	28.898	20.291	62.938	1.00	39.09
	ATOM	3159	O	ILE A 402	28.065	19.896	62.133	1.00	41.43
35	ATOM	3160	CB	ILE A 402	30.391	18.673	64.078	1.00	33.82
	ATOM	3161	CG1	ILE A 402	31.490	17.661	63.811	1.00	34.70
	ATOM	3162	CG2	ILE A 402	29.080	17.900	64.287	1.00	23.32
	ATOM	3163	CD1	ILE A 402	31.878	16.896	65.080	1.00	49.20
	ATOM	3164	N	PHE A 403	28.668	21.246	63.868	1.00	32.73
40	ATOM	3165	CA	PHE A 403	27.390	21.952	64.044	1.00	29.52
	ATOM	3166	C	PHE A 403	27.032	22.816	62.836	1.00	33.94
	ATOM	3167	O	PHE A 403	25.866	23.022	62.469	1.00	34.15
	ATOM	3168	CB	PHE A 403	27.319	22.719	65.381	1.00	29.03
	ATOM	3169	CG	PHE A 403	25.917	22.783	65.929	1.00	28.54
45	ATOM	3170	CD1	PHE A 403	25.323	21.643	66.484	1.00	29.91
	ATOM	3171	CD2	PHE A 403	25.176	23.964	65.873	1.00	27.62
	ATOM	3172	CE1	PHE A 403	24.021	21.667	66.990	1.00	27.38
	ATOM	3173	CE2	PHE A 403	23.881	24.017	66.393	1.00	28.82
	ATOM	3174	CZ	PHE A 403	23.304	22.863	66.932	1.00	25.72
50	ATOM	3175	N	LEU A 404	28.040	23.327	62.165	1.00	31.31
	ATOM	3176	CA	LEU A 404	27.687	24.080	60.983	1.00	32.95
	ATOM	3177	C	LEU A 404	27.068	23.099	59.952	1.00	32.89
	ATOM	3178	O	LEU A 404	26.050	23.361	59.315	1.00	37.36
	ATOM	3179	CB	LEU A 404	28.798	25.045	60.464	1.00	33.15
55	ATOM	3180	CG	LEU A 404	29.029	26.208	61.444	1.00	36.96
	ATOM	3181	CD1	LEU A 404	30.454	26.717	61.353	1.00	37.13
	ATOM	3182	CD2	LEU A 404	28.083	27.362	61.163	1.00	39.27
	ATOM	3183	N	GLY A 405	27.670	21.921	59.826	1.00	22.02
	ATOM	3184	CA	GLY A 405	27.167	20.908	58.928	1.00	22.77
60	ATOM	3185	C	GLY A 405	25.698	20.676	59.206	1.00	31.85
	ATOM	3186	O	GLY A 405	24.885	20.438	58.297	1.00	33.01
	ATOM	3187	N	PHE A 406	25.364	20.747	60.493	1.00	26.28
	ATOM	3188	CA	PHE A 406	23.992	20.565	60.863	1.00	25.27
	ATOM	3189	C	PHE A 406	23.188	21.757	60.365	1.00	34.80
	ATOM	3190	O	PHE A 406	22.195	21.629	59.638	1.00	36.22

5	ATOM	3191	CB	PHE	A	406	23.798	20.268	62.351	1.00	24.52
	ATOM	3192	CG	PHE	A	406	22.388	20.525	62.798	1.00	24.82
	ATOM	3193	CD1	PHE	A	406	21.328	19.734	62.353	1.00	28.50
	ATOM	3194	CD2	PHE	A	406	22.107	21.579	63.669	1.00	30.12
	ATOM	3195	CE1	PHE	A	406	20.025	19.977	62.793	1.00	31.40
10	ATOM	3196	CE2	PHE	A	406	20.810	21.862	64.105	1.00	32.57
	ATOM	3197	CZ	PHE	A	406	19.771	21.037	63.669	1.00	31.88
	ATOM	3198	N	LEU	A	407	23.661	22.934	60.708	1.00	32.11
	ATOM	3199	CA	LEU	A	407	22.972	24.132	60.269	1.00	33.11
	ATOM	3200	C	LEU	A	407	22.706	24.204	58.767	1.00	34.74
15	ATOM	3201	O	LEU	A	407	21.635	24.615	58.341	1.00	35.22
	ATOM	3202	CB	LEU	A	407	23.589	25.420	60.840	1.00	35.36
	ATOM	3203	CG	LEU	A	407	22.597	26.577	60.855	1.00	41.79
	ATOM	3204	CD1	LEU	A	407	23.048	27.626	61.833	1.00	40.45
	ATOM	3205	CD2	LEU	A	407	22.513	27.197	59.461	1.00	49.57
20	ATOM	3206	N	LYS	A	408	23.667	23.804	57.948	1.00	34.92
	ATOM	3207	CA	LYS	A	408	23.476	23.826	56.490	1.00	36.29
	ATOM	3208	C	LYS	A	408	22.378	22.876	56.037	1.00	38.15
	ATOM	3209	O	LYS	A	408	21.568	23.191	55.160	1.00	35.09
	ATOM	3210	CB	LYS	A	408	24.747	23.517	55.707	1.00	40.54
25	ATOM	3211	CG	LYS	A	408	24.633	23.873	54.214	1.00	43.41
	ATOM	3212	CD	LYS	A	408	25.950	23.796	53.422	1.00	49.26
	ATOM	3213	CE	LYS	A	408	26.808	25.059	53.459	1.00	61.45
	ATOM	3214	NZ	LYS	A	408	28.014	24.994	52.606	1.00	73.78
	ATOM	3215	N	ALA	A	409	22.352	21.690	56.655	1.00	35.34
30	ATOM	3216	CA	ALA	A	409	21.333	20.698	56.298	1.00	36.14
	ATOM	3217	C	ALA	A	409	19.927	21.041	56.814	1.00	38.45
	ATOM	3218	O	ALA	A	409	18.913	20.821	56.134	1.00	37.39
	ATOM	3219	CB	ALA	A	409	21.762	19.273	56.626	1.00	36.66
	ATOM	3220	N	TYR	A	410	19.902	21.597	58.030	1.00	33.14
35	ATOM	3221	CA	TYR	A	410	18.693	22.059	58.682	1.00	29.65
	ATOM	3222	C	TYR	A	410	18.028	23.051	57.730	1.00	35.55
	ATOM	3223	O	TYR	A	410	16.855	22.976	57.399	1.00	37.26
	ATOM	3224	CB	TYR	A	410	19.117	22.762	59.970	1.00	24.67
	ATOM	3225	CG	TYR	A	410	18.069	23.643	60.541	1.00	26.95
40	ATOM	3226	CD1	TYR	A	410	16.861	23.112	60.990	1.00	28.10
	ATOM	3227	CD2	TYR	A	410	18.288	25.015	60.663	1.00	29.66
	ATOM	3228	CE1	TYR	A	410	15.883	23.924	61.571	1.00	26.98
	ATOM	3229	CE2	TYR	A	410	17.316	25.839	61.230	1.00	31.84
	ATOM	3230	CZ	TYR	A	410	16.112	25.294	61.685	1.00	37.49
45	ATOM	3231	OH	TYR	A	410	15.156	26.110	62.241	1.00	33.48
	ATOM	3232	N	VAL	A	411	18.848	23.961	57.262	1.00	28.75
	ATOM	3233	CA	VAL	A	411	18.457	24.984	56.341	1.00	29.23
	ATOM	3234	C	VAL	A	411	18.013	24.469	54.992	1.00	34.00
	ATOM	3235	O	VAL	A	411	17.060	24.982	54.401	1.00	30.00
50	ATOM	3236	CB	VAL	A	411	19.617	25.922	56.139	1.00	32.22
	ATOM	3237	CG1	VAL	A	411	19.331	26.821	54.950	1.00	29.86
	ATOM	3238	CG2	VAL	A	411	19.850	26.708	57.431	1.00	31.69
	ATOM	3239	N	GLU	A	412	18.730	23.479	54.488	1.00	33.14
	ATOM	3240	CA	GLU	A	412	18.402	22.900	53.217	1.00	31.91
55	ATOM	3241	C	GLU	A	412	17.068	22.163	53.355	1.00	30.32
	ATOM	3242	O	GLU	A	412	16.182	22.225	52.531	1.00	31.89
	ATOM	3243	CB	GLU	A	412	19.502	21.883	52.932	1.00	36.48
	ATOM	3244	CG	GLU	A	412	20.443	22.174	51.737	1.00	67.01
	ATOM	3245	CD	GLU	A	412	21.872	21.699	51.962	1.00	100.00
60	ATOM	3246	OE1	GLU	A	412	22.193	20.782	52.716	1.00	100.00
	ATOM	3247	OE2	GLU	A	412	22.750	22.396	51.277	1.00	94.73
	ATOM	3248	N	LYS	A	413	16.922	21.444	54.444	1.00	22.18
	ATOM	3249	CA	LYS	A	413	15.729	20.692	54.714	1.00	17.91
	ATOM	3250	C	LYS	A	413	14.463	21.486	54.855	1.00	23.75
	ATOM	3251	O	LYS	A	413	13.417	20.978	54.503	1.00	25.92
	ATOM	3252	CB	LYS	A	413	15.890	19.911	55.988	1.00	15.65
	ATOM	3253	CG	LYS	A	413	14.554	19.422	56.503	1.00	38.69
	ATOM	3254	CD	LYS	A	413	14.150	18.089	55.903	1.00	58.11



	ATOM	3255	CE	LYS	A	413	13.634	17.099	56.937	1.00	64.98
	ATOM	3256	NZ	LYS	A	413	13.457	15.751	56.381	1.00	73.89
	ATOM	3257	N	PHE	A	414	14.530	22.688	55.424	1.00	25.40
5	ATOM	3258	CA	PHE	A	414	13.316	23.479	55.640	1.00	27.80
	ATOM	3259	C	PHE	A	414	13.151	24.748	54.821	1.00	35.82
	ATOM	3260	O	PHE	A	414	12.276	25.557	55.122	1.00	35.17
	ATOM	3261	CB	PHE	A	414	13.063	23.791	57.118	1.00	30.46
	ATOM	3262	CG	PHE	A	414	12.936	22.553	57.964	1.00	33.88
10	ATOM	3263	CD1	PHE	A	414	11.746	21.826	57.996	1.00	35.94
	ATOM	3264	CD2	PHE	A	414	14.005	22.110	58.742	1.00	37.75
	ATOM	3265	CE1	PHE	A	414	11.629	20.664	58.761	1.00	37.77
	ATOM	3266	CE2	PHE	A	414	13.888	20.962	59.526	1.00	42.23
	ATOM	3267	CZ	PHE	A	414	12.698	20.231	59.542	1.00	39.10
15	ATOM	3268	N	SER	A	415	13.970	24.933	53.795	1.00	36.12
	ATOM	3269	CA	SER	A	415	13.858	26.115	52.945	1.00	36.36
	ATOM	3270	C	SER	A	415	12.412	26.295	52.510	1.00	38.99
	ATOM	3271	O	SER	A	415	11.730	25.315	52.243	1.00	41.04
	ATOM	3272	CB	SER	A	415	14.773	26.008	51.736	1.00	37.43
20	ATOM	3273	OG	SER	A	415	16.036	26.566	52.046	1.00	46.73
	ATOM	3274	N	TYR	A	416	11.928	27.537	52.475	1.00	33.40
	ATOM	3275	CA	TYR	A	416	10.541	27.832	52.072	1.00	30.88
	ATOM	3276	C	TYR	A	416	9.453	27.183	52.947	1.00	33.62
	ATOM	3277	O	TYR	A	416	8.295	27.095	52.546	1.00	33.44
25	ATOM	3278	CB	TYR	A	416	10.292	27.479	50.584	1.00	28.42
	ATOM	3279	CG	TYR	A	416	11.496	27.782	49.723	1.00	24.76
	ATOM	3280	CD1	TYR	A	416	11.791	29.087	49.338	1.00	26.55
	ATOM	3281	CD2	TYR	A	416	12.375	26.778	49.335	1.00	21.68
	ATOM	3282	CE1	TYR	A	416	12.914	29.384	48.570	1.00	25.16
30	ATOM	3283	CE2	TYR	A	416	13.504	27.052	48.572	1.00	20.15
	ATOM	3284	CZ	TYR	A	416	13.780	28.360	48.189	1.00	30.62
	ATOM	3285	OH	TYR	A	416	14.892	28.616	47.399	1.00	35.15
	ATOM	3286	N	LYS	A	417	9.823	26.713	54.122	1.00	27.67
	ATOM	3287	CA	LYS	A	417	8.889	26.065	55.008	1.00	28.02
35	ATOM	3288	C	LYS	A	417	8.733	26.830	56.317	1.00	31.36
	ATOM	3289	O	LYS	A	417	9.547	27.671	56.682	1.00	33.15
	ATOM	3290	CB	LYS	A	417	9.335	24.615	55.252	1.00	33.86
	ATOM	3291	CG	LYS	A	417	8.449	23.792	56.201	1.00	86.28
	ATOM	3292	CD	LYS	A	417	8.742	22.275	56.232	1.00	100.00
40	ATOM	3293	CE	LYS	A	417	7.924	21.471	57.265	1.00	72.28
	ATOM	3294	NZ	LYS	A	417	8.280	20.033	57.323	1.00	41.88
	ATOM	3295	N	SER	A	418	7.668	26.557	57.033	1.00	28.88
	ATOM	3296	CA	SER	A	418	7.455	27.195	58.335	1.00	30.04
	ATOM	3297	C	SER	A	418	7.425	26.064	59.332	1.00	34.09
45	ATOM	3298	O	SER	A	418	6.614	25.145	59.193	1.00	31.54
	ATOM	3299	CB	SER	A	418	6.261	28.126	58.410	1.00	31.46
	ATOM	3300	OG	SER	A	418	6.417	29.106	57.399	1.00	35.01
	ATOM	3301	N	ILE	A	419	8.356	26.077	60.281	1.00	28.50
	ATOM	3302	CA	ILE	A	419	8.446	24.971	61.205	1.00	23.86
50	ATOM	3303	C	ILE	A	419	8.272	25.342	62.641	1.00	25.06
	ATOM	3304	O	ILE	A	419	8.122	26.500	63.002	1.00	21.64
	ATOM	3305	CB	ILE	A	419	9.803	24.314	61.026	1.00	25.02
	ATOM	3306	CG1	ILE	A	419	10.863	25.325	61.399	1.00	23.63
	ATOM	3307	CG2	ILE	A	419	10.051	23.937	59.565	1.00	23.22
55	ATOM	3308	CD1	ILE	A	419	12.236	24.688	61.253	1.00	23.48
	ATOM	3309	N	THR	A	420	8.321	24.302	63.455	1.00	24.71
	ATOM	3310	CA	THR	A	420	8.201	24.417	64.895	1.00	24.36
	ATOM	3311	C	THR	A	420	9.416	23.795	65.538	1.00	28.90
	ATOM	3312	O	THR	A	420	10.190	23.112	64.863	1.00	23.38
60	ATOM	3313	CB	THR	A	420	6.979	23.691	65.448	1.00	24.92
	ATOM	3314	OG1	THR	A	420	7.190	22.313	65.291	1.00	26.43
	ATOM	3315	CG2	THR	A	420	5.728	24.082	64.694	1.00	31.57
	ATOM	3316	N	THR	A	421	9.542	24.051	66.855	1.00	29.30
	ATOM	3317	CA	THR	A	421	10.610	23.549	67.709	1.00	27.78
	ATOM	3318	C	THR	A	421	10.831	22.035	67.585	1.00	30.99

	ATOM	3319	O	THR	A	421	11.975	21.594	67.489	1.00	33.28
	ATOM	3320	CB	THR	A	421	10.394	23.969	69.166	1.00	21.94
	ATOM	3321	OG1	THR	A	421	10.567	25.369	69.263	1.00	24.52
5	ATOM	3322	CG2	THR	A	421	11.399	23.221	70.045	1.00	20.12
	ATOM	3323	N	ASP	A	422	9.721	21.272	67.575	1.00	21.94
	ATOM	3324	CA	ASP	A	422	9.706	19.823	67.430	1.00	21.08
	ATOM	3325	C	ASP	A	422	10.323	19.401	66.104	1.00	31.16
	ATOM	3326	O	ASP	A	422	11.110	18.427	66.027	1.00	31.95
10	ATOM	3327	CB	ASP	A	422	8.276	19.278	67.561	1.00	19.49
	ATOM	3328	CG	ASP	A	422	8.236	17.802	67.298	1.00	31.85
	ATOM	3329	OD1	ASP	A	422	9.130	17.040	67.654	1.00	29.73
	ATOM	3330	OD2	ASP	A	422	7.197	17.415	66.598	1.00	56.60
	ATOM	3331	N	ASP	A	423	9.957	20.146	65.049	1.00	26.75
15	ATOM	3332	CA	ASP	A	423	10.505	19.876	63.729	1.00	26.01
	ATOM	3333	C	ASP	A	423	12.027	19.957	63.830	1.00	40.09
	ATOM	3334	O	ASP	A	423	12.753	19.020	63.500	1.00	47.09
	ATOM	3335	CB	ASP	A	423	10.000	20.833	62.631	1.00	24.86
	ATOM	3336	CG	ASP	A	423	8.538	20.722	62.343	1.00	39.90
20	ATOM	3337	OD1	ASP	A	423	7.968	19.649	62.299	1.00	45.03
	ATOM	3338	OD2	ASP	A	423	7.943	21.887	62.113	1.00	40.43
	ATOM	3339	N	TRP	A	424	12.493	21.099	64.320	1.00	31.92
	ATOM	3340	CA	TRP	A	424	13.903	21.372	64.495	1.00	29.69
	ATOM	3341	C	TRP	A	424	14.611	20.271	65.282	1.00	33.81
25	ATOM	3342	O	TRP	A	424	15.537	19.616	64.824	1.00	35.87
	ATOM	3343	CB	TRP	A	424	14.056	22.711	65.239	1.00	26.11
	ATOM	3344	CG	TRP	A	424	15.431	22.869	65.786	1.00	27.05
	ATOM	3345	CD1	TRP	A	424	16.518	23.302	65.101	1.00	29.65
	ATOM	3346	CD2	TRP	A	424	15.885	22.587	67.119	1.00	26.62
30	ATOM	3347	NE1	TRP	A	424	17.612	23.321	65.922	1.00	27.83
	ATOM	3348	CE2	TRP	A	424	17.257	22.891	67.163	1.00	28.62
	ATOM	3349	CE3	TRP	A	424	15.260	22.138	68.269	1.00	29.69
	ATOM	3350	CZ2	TRP	A	424	18.010	22.758	68.319	1.00	29.28
	ATOM	3351	CZ3	TRP	A	424	16.000	21.993	69.429	1.00	33.50
35	ATOM	3352	CH2	TRP	A	424	17.362	22.317	69.459	1.00	33.93
	ATOM	3353	N	LYS	A	425	14.156	20.090	66.497	1.00	28.75
	ATOM	3354	CA	LYS	A	425	14.723	19.105	67.373	1.00	29.43
	ATOM	3355	C	LYS	A	425	14.697	17.691	66.808	1.00	29.49
	ATOM	3356	O	LYS	A	425	15.627	16.928	67.030	1.00	27.65
40	ATOM	3357	CB	LYS	A	425	14.078	19.171	68.744	1.00	29.70
	ATOM	3358	CG	LYS	A	425	14.860	18.414	69.787	1.00	28.11
	ATOM	3359	CD	LYS	A	425	14.161	18.409	71.132	1.00	23.57
	ATOM	3360	CE	LYS	A	425	14.300	17.063	71.815	1.00	36.16
	ATOM	3361	NZ	LYS	A	425	13.042	16.302	71.768	1.00	58.08
45	ATOM	3362	N	ASP	A	426	13.606	17.361	66.107	1.00	19.05
	ATOM	3363	CA	ASP	A	426	13.417	16.070	65.516	1.00	18.43
	ATOM	3364	C	ASP	A	426	14.453	15.879	64.387	1.00	28.33
	ATOM	3365	O	ASP	A	426	15.070	14.832	64.232	1.00	31.25
	ATOM	3366	CB	ASP	A	426	11.920	15.840	65.098	1.00	19.79
50	ATOM	3367	CG	ASP	A	426	10.998	15.575	66.274	1.00	25.54
	ATOM	3368	OD1	ASP	A	426	11.341	15.466	67.409	1.00	29.73
	ATOM	3369	OD2	ASP	A	426	9.804	15.611	65.938	1.00	20.67
	ATOM	3370	N	PHE	A	427	14.674	16.926	63.612	1.00	25.09
	ATOM	3371	CA	PHE	A	427	15.654	16.899	62.540	1.00	25.81
55	ATOM	3372	C	PHE	A	427	17.066	16.718	63.159	1.00	34.01
	ATOM	3373	O	PHE	A	427	17.843	15.851	62.773	1.00	36.25
	ATOM	3374	CB	PHE	A	427	15.589	18.197	61.704	1.00	26.35
	ATOM	3375	CG	PHE	A	427	16.698	18.202	60.702	1.00	27.40
	ATOM	3376	CD1	PHE	A	427	16.714	17.247	59.686	1.00	29.97
60	ATOM	3377	CD2	PHE	A	427	17.773	19.084	60.805	1.00	28.71
	ATOM	3378	CE1	PHE	A	427	17.730	17.194	58.733	1.00	27.72
	ATOM	3379	CE2	PHE	A	427	18.806	19.046	59.867	1.00	30.37
	ATOM	3380	CZ	PHE	A	427	18.780	18.104	58.837	1.00	26.34
	ATOM	3381	N	LEU	A	428	17.369	17.544	64.160	1.00	28.94
	ATOM	3382	CA	LEU	A	428	18.622	17.496	64.924	1.00	27.74

	ATOM	3383	C	LEU	A	428	18.989	16.047	65.303	1.00	32.08
	ATOM	3384	O	LEU	A	428	20.145	15.647	65.209	1.00	36.38
	ATOM	3385	CB	LEU	A	428	18.510	18.362	66.223	1.00	24.68
5	ATOM	3386	CG	LEU	A	428	19.778	18.377	67.079	1.00	24.30
	ATOM	3387	CD1	LEU	A	428	20.855	19.278	66.467	1.00	23.00
	ATOM	3388	CD2	LEU	A	428	19.446	18.856	68.481	1.00	16.41
	ATOM	3389	N	TYR	A	429	17.991	15.271	65.735	1.00	23.71
	ATOM	3390	CA	TYR	A	429	18.148	13.896	66.144	1.00	23.18
10	ATOM	3391	C	TYR	A	429	18.311	12.967	64.976	1.00	26.62
	ATOM	3392	O	TYR	A	429	18.911	11.910	65.076	1.00	28.43
	ATOM	3393	CB	TYR	A	429	16.921	13.453	66.914	1.00	25.59
	ATOM	3394	CG	TYR	A	429	17.069	13.526	68.414	1.00	29.53
	ATOM	3395	CD1	TYR	A	429	16.823	14.714	69.114	1.00	31.11
15	ATOM	3396	CD2	TYR	A	429	17.361	12.383	69.156	1.00	32.70
	ATOM	3397	CE1	TYR	A	429	16.916	14.769	70.510	1.00	32.23
	ATOM	3398	CE2	TYR	A	429	17.485	12.420	70.551	1.00	35.30
	ATOM	3399	CZ	TYR	A	429	17.251	13.623	71.231	1.00	41.02
	ATOM	3400	OH	TYR	A	429	17.339	13.679	72.609	1.00	30.02
20	ATOM	3401	N	SER	A	430	17.748	13.342	63.854	1.00	21.68
	ATOM	3402	CA	SER	A	430	17.914	12.469	62.730	1.00	23.42
	ATOM	3403	C	SER	A	430	19.264	12.722	62.050	1.00	32.87
	ATOM	3404	O	SER	A	430	19.879	11.819	61.467	1.00	35.11
	ATOM	3405	CB	SER	A	430	16.756	12.541	61.773	1.00	28.79
25	ATOM	3406	OG	SER	A	430	17.089	13.475	60.777	1.00	49.56
	ATOM	3407	N	TYR	A	431	19.748	13.955	62.132	1.00	27.18
	ATOM	3408	CA	TYR	A	431	21.017	14.296	61.537	1.00	27.14
	ATOM	3409	C	TYR	A	431	22.152	13.702	62.316	1.00	32.52
	ATOM	3410	O	TYR	A	431	23.155	13.242	61.771	1.00	33.64
30	ATOM	3411	CB	TYR	A	431	21.216	15.818	61.385	1.00	31.07
	ATOM	3412	CG	TYR	A	431	22.566	16.265	60.812	1.00	35.63
	ATOM	3413	CD1	TYR	A	431	23.663	16.492	61.650	1.00	36.88
	ATOM	3414	CD2	TYR	A	431	22.735	16.496	59.444	1.00	36.92
	ATOM	3415	CE1	TYR	A	431	24.894	16.924	61.157	1.00	33.78
35	ATOM	3416	CE2	TYR	A	431	23.964	16.916	58.924	1.00	37.86
	ATOM	3417	CZ	TYR	A	431	25.038	17.143	59.786	1.00	46.01
	ATOM	3418	OH	TYR	A	431	26.247	17.573	59.294	1.00	51.28
	ATOM	3419	N	PHE	A	432	21.964	13.728	63.606	1.00	29.66
	ATOM	3420	CA	PHE	A	432	22.939	13.215	64.526	1.00	29.12
40	ATOM	3421	C	PHE	A	432	22.522	11.865	65.007	1.00	42.64
	ATOM	3422	O	PHE	A	432	22.499	11.593	66.197	1.00	46.77
	ATOM	3423	CB	PHE	A	432	23.063	14.157	65.719	1.00	30.24
	ATOM	3424	CG	PHE	A	432	23.962	15.327	65.401	1.00	33.03
	ATOM	3425	CD1	PHE	A	432	25.336	15.113	65.277	1.00	37.22
45	ATOM	3426	CD2	PHE	A	432	23.470	16.624	65.232	1.00	30.70
	ATOM	3427	CE1	PHE	A	432	26.223	16.153	64.999	1.00	34.27
	ATOM	3428	CE2	PHE	A	432	24.349	17.667	64.938	1.00	31.71
	ATOM	3429	CZ	PHE	A	432	25.722	17.438	64.823	1.00	27.82
	ATOM	3430	N	LYS	A	433	22.174	11.029	64.063	1.00	42.50
50	ATOM	3431	CA	LYS	A	433	21.669	9.670	64.270	1.00	40.87
	ATOM	3432	C	LYS	A	433	22.718	8.751	64.908	1.00	46.17
	ATOM	3433	O	LYS	A	433	22.405	7.734	65.513	1.00	48.48
	ATOM	3434	CB	LYS	A	433	21.245	9.106	62.917	1.00	39.25
	ATOM	3435	CG	LYS	A	433	19.988	8.241	63.017	1.00	84.17
55	ATOM	3436	CD	LYS	A	433	18.925	8.660	62.000	1.00	100.00
	ATOM	3437	CE	LYS	A	433	17.523	8.172	62.384	1.00	100.00
	ATOM	3438	NZ	LYS	A	433	16.525	9.119	61.884	1.00	100.00
	ATOM	3439	N	ASP	A	434	24.002	9.112	64.697	1.00	45.20
	ATOM	3440	CA	ASP	A	434	25.083	8.349	65.321	1.00	47.80
60	ATOM	3441	C	ASP	A	434	25.201	8.684	66.802	1.00	50.78
	ATOM	3442	O	ASP	A	434	25.474	7.845	67.653	1.00	55.76
	ATOM	3443	CB	ASP	A	434	26.405	8.567	64.562	1.00	53.91
	ATOM	3444	CG	ASP	A	434	26.123	8.474	63.069	1.00	93.32
	ATOM	3445	OD1	ASP	A	434	25.744	7.573	62.325	1.00	96.22
	ATOM	3446	OD2	ASP	A	434	26.119	9.664	62.753	1.00	100.00

	ATOM	3447	N	LYS	A	435	25.015	9.978	67.085	1.00	38.82
	ATOM	3448	CA	LYS	A	435	24.974	10.404	68.468	1.00	34.57
	ATOM	3449	C	LYS	A	435	23.549	10.749	68.881	1.00	39.87
5	ATOM	3450	O	LYS	A	435	23.070	11.840	68.693	1.00	40.34
	ATOM	3451	CB	LYS	A	435	25.864	11.631	68.615	1.00	34.69
	ATOM	3452	CG	LYS	A	435	27.064	11.595	67.679	1.00	40.86
	ATOM	3453	CD	LYS	A	435	27.703	12.975	67.532	1.00	51.04
	ATOM	3454	CE	LYS	A	435	29.242	12.904	67.557	1.00	24.08
	ATOM	3455	NZ	LYS	A	435	29.822	13.990	66.760	1.00	45.26
10	ATOM	3456	N	VAL	A	436	22.843	9.728	69.414	1.00	38.07
	ATOM	3457	CA	VAL	A	436	21.601	10.036	70.111	1.00	36.86
	ATOM	3458	C	VAL	A	436	21.846	10.129	71.608	1.00	44.88
	ATOM	3459	O	VAL	A	436	21.289	10.948	72.300	1.00	46.42
	ATOM	3460	CB	VAL	A	436	20.567	8.923	69.816	1.00	37.37
15	ATOM	3461	CG1	VAL	A	436	19.944	9.143	68.446	1.00	36.24
	ATOM	3462	CG2	VAL	A	436	21.227	7.556	69.854	1.00	36.80
	ATOM	3463	N	ASP	A	437	22.718	9.232	72.099	1.00	43.61
	ATOM	3464	CA	ASP	A	437	23.044	9.222	73.522	1.00	41.43
	ATOM	3465	C	ASP	A	437	23.657	10.546	73.958	1.00	45.71
20	ATOM	3466	O	ASP	A	437	23.554	10.956	75.107	1.00	49.89
	ATOM	3467	CB	ASP	A	437	24.022	8.082	73.776	1.00	43.84
	ATOM	3468	CG	ASP	A	437	23.281	6.752	73.691	1.00	72.47
	ATOM	3469	OD1	ASP	A	437	22.062	6.769	73.823	1.00	74.64
	ATOM	3470	OD2	ASP	A	437	23.933	5.730	73.481	1.00	86.09
25	ATOM	3471	N	VAL	A	438	24.333	11.324	73.122	1.00	40.21
	ATOM	3472	CA	VAL	A	438	24.807	12.624	73.577	1.00	40.97
	ATOM	3473	C	VAL	A	438	23.621	13.582	73.668	1.00	41.86
	ATOM	3474	O	VAL	A	438	23.368	14.276	74.657	1.00	39.95
	ATOM	3475	CB	VAL	A	438	25.875	13.165	72.615	1.00	47.47
30	ATOM	3476	CG1	VAL	A	438	26.438	14.523	73.051	1.00	47.51
	ATOM	3477	CG2	VAL	A	438	26.996	12.149	72.440	1.00	47.51
	ATOM	3478	N	LEU	A	439	22.876	13.595	72.585	1.00	37.91
	ATOM	3479	CA	LEU	A	439	21.729	14.442	72.507	1.00	36.21
	ATOM	3480	C	LEU	A	439	20.850	14.190	73.695	1.00	40.03
35	ATOM	3481	O	LEU	A	439	20.214	15.064	74.255	1.00	42.22
	ATOM	3482	CB	LEU	A	439	20.949	14.180	71.210	1.00	33.84
	ATOM	3483	CG	LEU	A	439	21.552	14.939	70.039	1.00	32.80
	ATOM	3484	CD1	LEU	A	439	20.813	14.538	68.775	1.00	34.08
	ATOM	3485	CD2	LEU	A	439	21.435	16.434	70.258	1.00	23.80
40	ATOM	3486	N	ASN	A	440	20.810	12.953	74.076	1.00	34.03
	ATOM	3487	CA	ASN	A	440	19.971	12.603	75.187	1.00	34.00
	ATOM	3488	C	ASN	A	440	20.494	13.093	76.532	1.00	40.95
	ATOM	3489	O	ASN	A	440	19.816	12.995	77.544	1.00	42.09
	ATOM	3490	CB	ASN	A	440	19.681	11.095	75.178	1.00	24.89
45	ATOM	3491	CG	ASN	A	440	18.790	10.635	74.028	1.00	46.52
	ATOM	3492	OD1	ASN	A	440	19.005	9.537	73.480	1.00	58.82
	ATOM	3493	ND2	ASN	A	440	17.769	11.440	73.680	1.00	31.11
	ATOM	3494	N	GLN	A	441	21.707	13.623	76.531	1.00	36.98
	ATOM	3495	CA	GLN	A	441	22.339	14.095	77.744	1.00	35.47
50	ATOM	3496	C	GLN	A	441	21.879	15.478	78.067	1.00	36.00
	ATOM	3497	O	GLN	A	441	22.137	16.029	79.142	1.00	34.96
	ATOM	3498	CB	GLN	A	441	23.878	14.109	77.581	1.00	38.10
	ATOM	3499	CG	GLN	A	441	24.504	12.692	77.422	1.00	52.06
	ATOM	3500	CD	GLN	A	441	25.954	12.730	76.955	1.00	81.69
55	ATOM	3501	OE1	GLN	A	441	26.476	13.796	76.609	1.00	74.46
	ATOM	3502	NE2	GLN	A	441	26.616	11.574	76.972	1.00	91.09
	ATOM	3503	N	VAL	A	442	21.197	16.067	77.112	1.00	31.86
	ATOM	3504	CA	VAL	A	442	20.753	17.411	77.384	1.00	32.78
	ATOM	3505	C	VAL	A	442	19.354	17.468	77.970	1.00	38.24
60	ATOM	3506	O	VAL	A	442	18.468	16.700	77.588	1.00	42.83
	ATOM	3507	CB	VAL	A	442	20.845	18.277	76.159	1.00	34.84
	ATOM	3508	CG1	VAL	A	442	21.430	17.435	75.020	1.00	34.65
	ATOM	3509	CG2	VAL	A	442	19.441	18.705	75.811	1.00	33.21
	ATOM	3510	N	ASP	A	443	19.172	18.388	78.908	1.00	25.60

5	ATOM	3511	CA	ASP	A	443	17.931	18.634	79.616	1.00	24.57
	ATOM	3512	C	ASP	A	443	16.996	19.533	78.791	1.00	32.14
	ATOM	3513	O	ASP	A	443	16.744	20.732	79.073	1.00	34.77
	ATOM	3514	CB	ASP	A	443	18.332	19.272	80.957	1.00	27.11
	ATOM	3515	CG	ASP	A	443	17.216	19.413	81.901	1.00	39.99
10	ATOM	3516	OD1	ASP	A	443	16.063	19.234	81.573	1.00	44.78
	ATOM	3517	OD2	ASP	A	443	17.631	19.753	83.094	1.00	56.66
	ATOM	3518	N	TRP	A	444	16.525	18.914	77.722	1.00	28.30
	ATOM	3519	CA	TRP	A	444	15.614	19.507	76.757	1.00	26.27
	ATOM	3520	C	TRP	A	444	14.460	20.296	77.416	1.00	31.52
15	ATOM	3521	O	TRP	A	444	14.102	21.409	76.988	1.00	34.63
	ATOM	3522	CB	TRP	A	444	15.067	18.398	75.799	1.00	21.47
	ATOM	3523	CG	TRP	A	444	16.095	17.951	74.806	1.00	22.03
	ATOM	3524	CD1	TRP	A	444	16.675	16.718	74.736	1.00	25.16
	ATOM	3525	CD2	TRP	A	444	16.733	18.738	73.776	1.00	20.36
20	ATOM	3526	NE1	TRP	A	444	17.623	16.677	73.738	1.00	23.97
	ATOM	3527	CE2	TRP	A	444	17.688	17.906	73.138	1.00	24.71
	ATOM	3528	CE3	TRP	A	444	16.596	20.045	73.342	1.00	20.86
	ATOM	3529	CZ2	TRP	A	444	18.448	18.345	72.060	1.00	24.51
	ATOM	3530	CZ3	TRP	A	444	17.353	20.471	72.264	1.00	22.88
25	ATOM	3531	CH2	TRP	A	444	18.281	19.643	71.643	1.00	23.48
	ATOM	3532	N	ASN	A	445	13.855	19.711	78.457	1.00	24.92
	ATOM	3533	CA	ASN	A	445	12.723	20.326	79.113	1.00	26.30
	ATOM	3534	C	ASN	A	445	13.040	21.677	79.729	1.00	30.17
	ATOM	3535	O	ASN	A	445	12.291	22.660	79.547	1.00	31.86
30	ATOM	3536	CB	ASN	A	445	11.987	19.382	80.094	1.00	40.83
	ATOM	3537	CG	ASN	A	445	10.946	20.033	81.020	1.00	87.07
	ATOM	3538	OD1	ASN	A	445	11.271	20.635	82.065	1.00	86.38
	ATOM	3539	ND2	ASN	A	445	9.670	19.848	80.688	1.00	71.65
	ATOM	3540	N	ALA	A	446	14.147	21.687	80.436	1.00	22.70
35	ATOM	3541	CA	ALA	A	446	14.583	22.886	81.073	1.00	24.45
	ATOM	3542	C	ALA	A	446	14.886	23.896	79.990	1.00	30.52
	ATOM	3543	O	ALA	A	446	14.324	25.001	79.936	1.00	33.92
	ATOM	3544	CB	ALA	A	446	15.814	22.543	81.900	1.00	25.68
	ATOM	3545	N	TRP	A	447	15.776	23.494	79.102	1.00	25.24
40	ATOM	3546	CA	TRP	A	447	16.162	24.384	78.034	1.00	26.83
	ATOM	3547	C	TRP	A	447	14.989	24.912	77.223	1.00	31.32
	ATOM	3548	O	TRP	A	447	14.971	26.089	76.875	1.00	30.48
	ATOM	3549	CB	TRP	A	447	17.166	23.725	77.062	1.00	25.78
	ATOM	3550	CG	TRP	A	447	18.625	23.815	77.421	1.00	26.60
45	ATOM	3551	CD1	TRP	A	447	19.343	22.840	78.046	1.00	28.89
	ATOM	3552	CD2	TRP	A	447	19.554	24.896	77.165	1.00	26.16
	ATOM	3553	NE1	TRP	A	447	20.654	23.217	78.197	1.00	27.23
	ATOM	3554	CE2	TRP	A	447	20.822	24.476	77.660	1.00	29.00
	ATOM	3555	CE3	TRP	A	447	19.435	26.162	76.607	1.00	27.56
50	ATOM	3556	CZ2	TRP	A	447	21.954	25.290	77.583	1.00	27.95
	ATOM	3557	CZ3	TRP	A	447	20.554	26.966	76.538	1.00	29.93
	ATOM	3558	CH2	TRP	A	447	21.792	26.539	77.035	1.00	30.16
	ATOM	3559	N	LEU	A	448	14.029	24.034	76.893	1.00	26.54
	ATOM	3560	CA	LEU	A	448	12.896	24.421	76.052	1.00	26.92
55	ATOM	3561	C	LEU	A	448	11.734	25.064	76.779	1.00	36.15
	ATOM	3562	O	LEU	A	448	11.089	26.031	76.304	1.00	31.19
	ATOM	3563	CB	LEU	A	448	12.338	23.197	75.307	1.00	25.26
	ATOM	3564	CG	LEU	A	448	13.311	22.545	74.332	1.00	28.29
	ATOM	3565	CD1	LEU	A	448	12.597	21.455	73.530	1.00	30.49
60	ATOM	3566	CD2	LEU	A	448	13.879	23.576	73.375	1.00	21.94
	ATOM	3567	N	TYR	A	449	11.472	24.455	77.924	1.00	33.14
	ATOM	3568	CA	TYR	A	449	10.373	24.835	78.747	1.00	30.64
	ATOM	3569	C	TYR	A	449	10.646	25.525	80.041	1.00	34.31
	ATOM	3570	O	TYR	A	449	9.750	26.191	80.529	1.00	41.98
	ATOM	3571	CB	TYR	A	449	9.400	23.674	78.916	1.00	29.14
	ATOM	3572	CG	TYR	A	449	9.212	23.089	77.556	1.00	26.50
	ATOM	3573	CD1	TYR	A	449	8.762	23.869	76.485	1.00	24.36
	ATOM	3574	CD2	TYR	A	449	9.560	21.762	77.325	1.00	28.48

	ATOM	3575	CE1	TYR	A	449	8.626	23.331	75.202	1.00	17.56
	ATOM	3576	CE2	TYR	A	449	9.427	21.205	76.054	1.00	29.93
	ATOM	3577	CZ	TYR	A	449	8.959	21.988	74.998	1.00	33.65
5	ATOM	3578	OH	TYR	A	449	8.840	21.415	73.762	1.00	39.47
	ATOM	3579	N	SER	A	450	11.806	25.413	80.644	1.00	22.72
	ATOM	3580	CA	SER	A	450	11.902	26.149	81.900	1.00	21.21
	ATOM	3581	C	SER	A	450	12.278	27.625	81.749	1.00	23.98
	ATOM	3582	O	SER	A	450	12.966	28.035	80.810	1.00	27.17
10	ATOM	3583	CB	SER	A	450	12.666	25.436	83.010	1.00	24.83
	ATOM	3584	OG	SER	A	450	12.540	24.046	82.871	1.00	36.29
	ATOM	3585	N	PRO	A	451	11.806	28.430	82.689	1.00	19.76
	ATOM	3586	CA	PRO	A	451	12.111	29.840	82.669	1.00	18.20
	ATOM	3587	C	PRO	A	451	13.461	29.988	83.271	1.00	21.72
	ATOM	3588	O	PRO	A	451	14.022	29.015	83.742	1.00	24.34
15	ATOM	3589	CB	PRO	A	451	11.185	30.485	83.695	1.00	18.85
	ATOM	3590	CG	PRO	A	451	10.836	29.390	84.677	1.00	23.13
	ATOM	3591	CD	PRO	A	451	11.002	28.078	83.900	1.00	19.61
	ATOM	3592	N	GLY	A	452	13.959	31.212	83.307	1.00	18.97
20	ATOM	3593	CA	GLY	A	452	15.241	31.444	83.922	1.00	19.09
	ATOM	3594	C	GLY	A	452	16.382	31.107	83.016	1.00	26.20
	ATOM	3595	O	GLY	A	452	16.191	30.916	81.819	1.00	27.37
	ATOM	3596	N	LEU	A	453	17.557	31.057	83.650	1.00	25.48
	ATOM	3597	CA	LEU	A	453	18.843	30.750	83.029	1.00	25.32
25	ATOM	3598	C	LEU	A	453	18.906	29.322	82.629	1.00	26.21
	ATOM	3599	O	LEU	A	453	18.400	28.458	83.322	1.00	25.04
	ATOM	3600	CB	LEU	A	453	20.042	31.119	83.938	1.00	25.46
	ATOM	3601	CG	LEU	A	453	20.280	32.632	83.904	1.00	31.82
	ATOM	3602	CD1	LEU	A	453	21.019	33.087	85.119	1.00	31.78
30	ATOM	3603	CD2	LEU	A	453	21.046	33.056	82.651	1.00	41.50
	ATOM	3604	N	PRO	A	454	19.510	29.082	81.489	1.00	22.97
	ATOM	3605	CA	PRO	A	454	19.585	27.747	81.003	1.00	21.60
	ATOM	3606	C	PRO	A	454	20.145	26.890	82.075	1.00	26.94
	ATOM	3607	O	PRO	A	454	20.923	27.359	82.893	1.00	29.09
35	ATOM	3608	CB	PRO	A	454	20.489	27.780	79.768	1.00	22.34
	ATOM	3609	CG	PRO	A	454	20.777	29.232	79.470	1.00	23.69
	ATOM	3610	CD	PRO	A	454	20.136	30.054	80.556	1.00	20.82
	ATOM	3611	N	PRO	A	455	19.721	25.648	82.067	1.00	25.61
	ATOM	3612	CA	PRO	A	455	20.167	24.683	83.031	1.00	24.27
40	ATOM	3613	C	PRO	A	455	21.661	24.568	82.991	1.00	30.95
	ATOM	3614	O	PRO	A	455	22.225	24.062	83.920	1.00	33.47
	ATOM	3615	CB	PRO	A	455	19.631	23.320	82.592	1.00	25.04
	ATOM	3616	CG	PRO	A	455	19.149	23.497	81.162	1.00	33.02
	ATOM	3617	CD	PRO	A	455	19.111	25.005	80.888	1.00	28.49
45	ATOM	3618	N	ILE	A	456	22.305	25.002	81.911	1.00	27.91
	ATOM	3619	CA	ILE	A	456	23.764	24.893	81.821	1.00	27.82
	ATOM	3620	C	ILE	A	456	24.395	26.057	81.077	1.00	34.73
	ATOM	3621	O	ILE	A	456	23.737	26.769	80.293	1.00	37.01
	ATOM	3622	CB	ILE	A	456	24.228	23.540	81.259	1.00	31.34
50	ATOM	3623	CG1	ILE	A	456	25.721	23.305	81.417	1.00	29.78
	ATOM	3624	CG2	ILE	A	456	23.865	23.369	79.788	1.00	32.96
	ATOM	3625	CD1	ILE	A	456	26.054	21.852	81.116	1.00	23.94
	ATOM	3626	N	LYS	A	457	25.680	26.252	81.334	1.00	30.52
	ATOM	3627	CA	LYS	A	457	26.405	27.335	80.707	1.00	30.21
55	ATOM	3628	C	LYS	A	457	27.515	26.808	79.835	1.00	32.14
	ATOM	3629	O	LYS	A	457	28.328	26.037	80.273	1.00	33.07
	ATOM	3630	CB	LYS	A	457	26.953	28.264	81.749	1.00	32.38
	ATOM	3631	CG	LYS	A	457	27.818	29.327	81.121	1.00	34.64
	ATOM	3632	CD	LYS	A	457	28.288	30.306	82.166	1.00	13.41
60	ATOM	3633	CE	LYS	A	457	28.803	31.596	81.565	1.00	18.04
	ATOM	3634	NZ	LYS	A	457	28.974	32.643	82.595	1.00	26.77
	ATOM	3635	N	PRO	A	458	27.567	27.208	78.589	1.00	27.50
	ATOM	3636	CA	PRO	A	458	28.630	26.675	77.737	1.00	26.85
	ATOM	3637	C	PRO	A	458	29.994	27.147	78.185	1.00	26.89
	ATOM	3638	O	PRO	A	458	30.128	27.876	79.167	1.00	24.86

	ATOM	3639	CB	PRO	A	458	28.335	27.191	76.316	1.00	29.41
	ATOM	3640	CG	PRO	A	458	26.952	27.864	76.375	1.00	33.24
	ATOM	3641	CD	PRO	A	458	26.574	28.044	77.848	1.00	26.12
5	ATOM	3642	N	ASN	A	459	31.005	26.754	77.440	1.00	22.13
	ATOM	3643	CA	ASN	A	459	32.359	27.191	77.735	1.00	22.29
	ATOM	3644	C	ASN	A	459	32.751	28.325	76.820	1.00	30.27
	ATOM	3645	O	ASN	A	459	32.451	28.296	75.617	1.00	32.89
	ATOM	3646	CB	ASN	A	459	33.315	26.060	77.494	1.00	25.03
10	ATOM	3647	CG	ASN	A	459	32.766	24.846	78.155	1.00	49.54
	ATOM	3648	OD1	ASN	A	459	32.618	24.822	79.383	1.00	50.09
	ATOM	3649	ND2	ASN	A	459	32.411	23.870	77.332	1.00	38.39
	ATOM	3650	N	TYR	A	460	33.448	29.316	77.380	1.00	25.58
	ATOM	3651	CA	TYR	A	460	33.851	30.493	76.625	1.00	23.89
15	ATOM	3652	C	TYR	A	460	35.298	30.853	76.745	1.00	34.20
	ATOM	3653	O	TYR	A	460	35.849	30.862	77.839	1.00	35.27
	ATOM	3654	CB	TYR	A	460	33.120	31.708	77.171	1.00	24.38
	ATOM	3655	CG	TYR	A	460	31.636	31.631	77.024	1.00	26.98
	ATOM	3656	CD1	TYR	A	460	31.029	32.011	75.829	1.00	30.69
20	ATOM	3657	CD2	TYR	A	460	30.838	31.168	78.064	1.00	25.70
	ATOM	3658	CE1	TYR	A	460	29.644	31.952	75.684	1.00	28.77
	ATOM	3659	CE2	TYR	A	460	29.453	31.096	77.938	1.00	25.24
	ATOM	3660	CZ	TYR	A	460	28.863	31.496	76.741	1.00	24.49
	ATOM	3661	OH	TYR	A	460	27.519	31.443	76.587	1.00	28.39
25	ATOM	3662	N	ASP	A	461	35.893	31.227	75.616	1.00	30.58
	ATOM	3663	CA	ASP	A	461	37.268	31.640	75.654	1.00	27.51
	ATOM	3664	C	ASP	A	461	37.319	32.941	76.464	1.00	23.53
	ATOM	3665	O	ASP	A	461	36.377	33.704	76.396	1.00	26.62
	ATOM	3666	CB	ASP	A	461	37.821	31.784	74.218	1.00	27.30
30	ATOM	3667	CG	ASP	A	461	39.137	32.466	74.260	1.00	32.53
	ATOM	3668	OD1	ASP	A	461	39.262	33.672	74.334	1.00	39.66
	ATOM	3669	OD2	ASP	A	461	40.130	31.628	74.306	1.00	44.34
	ATOM	3670	N	MET	A	462	38.375	33.234	77.224	1.00	17.26
	ATOM	3671	CA	MET	A	462	38.396	34.511	78.008	1.00	18.66
35	ATOM	3672	C	MET	A	462	39.299	35.634	77.485	1.00	24.02
	ATOM	3673	O	MET	A	462	39.336	36.738	78.011	1.00	24.56
	ATOM	3674	CB	MET	A	462	38.818	34.186	79.431	1.00	22.99
	ATOM	3675	CG	MET	A	462	37.808	33.209	80.025	1.00	28.98
	ATOM	3676	SD	MET	A	462	36.166	33.969	79.951	1.00	33.22
40	ATOM	3677	CE	MET	A	462	36.420	35.300	81.153	1.00	27.89
	ATOM	3678	N	THR	A	463	40.067	35.348	76.461	1.00	22.57
	ATOM	3679	CA	THR	A	463	41.015	36.285	75.911	1.00	22.64
	ATOM	3680	C	THR	A	463	40.690	37.738	75.961	1.00	33.12
	ATOM	3681	O	THR	A	463	41.372	38.493	76.640	1.00	35.27
45	ATOM	3682	CB	THR	A	463	41.574	35.929	74.536	1.00	29.80
	ATOM	3683	OG1	THR	A	463	41.939	34.576	74.509	1.00	26.74
	ATOM	3684	CG2	THR	A	463	42.797	36.793	74.224	1.00	18.79
	ATOM	3685	N	LEU	A	464	39.700	38.141	75.177	1.00	30.50
	ATOM	3686	CA	LEU	A	464	39.293	39.533	75.061	1.00	29.15
50	ATOM	3687	C	LEU	A	464	38.490	40.067	76.216	1.00	34.24
	ATOM	3688	O	LEU	A	464	38.439	41.270	76.422	1.00	37.12
	ATOM	3689	CB	LEU	A	464	38.537	39.767	73.743	1.00	29.20
	ATOM	3690	CG	LEU	A	464	39.393	39.394	72.527	1.00	33.73
	ATOM	3691	CD1	LEU	A	464	38.609	39.565	71.217	1.00	32.72
55	ATOM	3692	CD2	LEU	A	464	40.648	40.261	72.499	1.00	26.22
	ATOM	3693	N	THR	A	465	37.855	39.167	76.964	1.00	30.71
	ATOM	3694	CA	THR	A	465	37.005	39.496	78.103	1.00	28.58
	ATOM	3695	C	THR	A	465	37.800	39.893	79.324	1.00	30.69
	ATOM	3696	O	THR	A	465	37.530	40.865	80.030	1.00	31.27
60	ATOM	3697	CB	THR	A	465	36.016	38.328	78.372	1.00	35.85
	ATOM	3698	OG1	THR	A	465	35.101	38.212	77.296	1.00	50.93
	ATOM	3699	CG2	THR	A	465	35.255	38.451	79.690	1.00	26.34
	ATOM	3700	N	ASN	A	466	38.802	39.111	79.568	1.00	24.40
	ATOM	3701	CA	ASN	A	466	39.635	39.375	80.688	1.00	23.11
	ATOM	3702	C	ASN	A	466	39.899	40.856	80.967	1.00	28.37

	ATOM	3703	O	ASN	A	466	39.763	41.270	82.120	1.00	27.03
	ATOM	3704	CB	ASN	A	466	40.921	38.543	80.629	1.00	20.30
	ATOM	3705	CG	ASN	A	466	40.709	37.145	81.155	1.00	32.26
5	ATOM	3706	OD1	ASN	A	466	41.384	36.191	80.723	1.00	29.29
	ATOM	3707	ND2	ASN	A	466	39.775	37.015	82.111	1.00	28.19
	ATOM	3708	N	ALA	A	467	40.306	41.666	79.967	1.00	27.97
	ATOM	3709	CA	ALA	A	467	40.587	43.079	80.295	1.00	26.66
	ATOM	3710	C	ALA	A	467	39.352	43.827	80.720	1.00	31.78
10	ATOM	3711	O	ALA	A	467	39.406	44.845	81.393	1.00	31.71
	ATOM	3712	CB	ALA	A	467	41.365	43.837	79.256	1.00	25.99
	ATOM	3713	N	CYS	A	468	38.217	43.277	80.336	1.00	28.06
	ATOM	3714	CA	CYS	A	468	36.942	43.862	80.693	1.00	25.80
	ATOM	3715	C	CYS	A	468	36.668	43.619	82.165	1.00	26.47
15	ATOM	3716	O	CYS	A	468	36.469	44.517	82.963	1.00	27.99
	ATOM	3717	CB	CYS	A	468	35.882	43.376	79.696	1.00	24.56
	ATOM	3718	SG	CYS	A	468	36.455	43.873	78.049	1.00	27.76
	ATOM	3719	N	ILE	A	469	36.752	42.384	82.540	1.00	24.34
	ATOM	3720	CA	ILE	A	469	36.599	42.052	83.921	1.00	25.23
20	ATOM	3721	C	ILE	A	469	37.560	42.800	84.876	1.00	28.13
	ATOM	3722	O	ILE	A	469	37.175	43.220	85.950	1.00	29.54
	ATOM	3723	CB	ILE	A	469	36.858	40.574	84.068	1.00	27.23
	ATOM	3724	CG1	ILE	A	469	35.956	39.801	83.112	1.00	26.94
	ATOM	3725	CG2	ILE	A	469	36.537	40.208	85.496	1.00	25.56
25	ATOM	3726	CD1	ILE	A	469	36.247	38.298	83.085	1.00	45.50
	ATOM	3727	N	ALA	A	470	38.830	42.960	84.534	1.00	23.28
	ATOM	3728	CA	ALA	A	470	39.749	43.621	85.461	1.00	22.23
	ATOM	3729	C	ALA	A	470	39.392	45.038	85.808	1.00	30.29
	ATOM	3730	O	ALA	A	470	39.474	45.451	86.986	1.00	32.82
30	ATOM	3731	CB	ALA	A	470	41.218	43.502	85.074	1.00	21.98
	ATOM	3732	N	LEU	A	471	39.007	45.760	84.759	1.00	23.53
	ATOM	3733	CA	LEU	A	471	38.643	47.173	84.834	1.00	18.39
	ATOM	3734	C	LEU	A	471	37.333	47.373	85.569	1.00	26.57
	ATOM	3735	O	LEU	A	471	37.210	48.208	86.462	1.00	30.48
35	ATOM	3736	CB	LEU	A	471	38.676	47.827	83.444	1.00	15.51
	ATOM	3737	CG	LEU	A	471	38.671	49.325	83.539	1.00	24.20
	ATOM	3738	CD1	LEU	A	471	39.754	49.795	84.513	1.00	24.86
	ATOM	3739	CD2	LEU	A	471	38.876	49.941	82.156	1.00	26.35
	ATOM	3740	N	SER	A	472	36.351	46.570	85.222	1.00	25.31
40	ATOM	3741	CA	SER	A	472	35.080	46.674	85.901	1.00	27.56
	ATOM	3742	C	SER	A	472	35.260	46.477	87.396	1.00	33.46
	ATOM	3743	O	SER	A	472	34.800	47.292	88.214	1.00	32.85
	ATOM	3744	CB	SER	A	472	33.989	45.714	85.393	1.00	32.06
	ATOM	3745	OG	SER	A	472	34.492	44.774	84.470	1.00	48.56
45	ATOM	3746	N	GLN	A	473	35.911	45.350	87.736	1.00	27.52
	ATOM	3747	CA	GLN	A	473	36.170	44.971	89.108	1.00	24.10
	ATOM	3748	C	GLN	A	473	36.866	46.096	89.836	1.00	25.18
	ATOM	3749	O	GLN	A	473	36.534	46.458	90.969	1.00	21.62
	ATOM	3750	CB	GLN	A	473	36.994	43.671	89.148	1.00	25.86
50	ATOM	3751	CG	GLN	A	473	36.128	42.402	89.118	1.00	32.72
	ATOM	3752	CD	GLN	A	473	34.970	42.504	90.090	1.00	46.08
	ATOM	3753	OE1	GLN	A	473	35.165	42.422	91.308	1.00	40.73
	ATOM	3754	NE2	GLN	A	473	33.761	42.692	89.559	1.00	28.28
	ATOM	3755	N	ARG	A	474	37.855	46.656	89.161	1.00	24.00
55	ATOM	3756	CA	ARG	A	474	38.562	47.765	89.779	1.00	24.46
	ATOM	3757	C	ARG	A	474	37.609	48.893	90.141	1.00	29.31
	ATOM	3758	O	ARG	A	474	37.620	49.447	91.242	1.00	33.13
	ATOM	3759	CB	ARG	A	474	39.682	48.290	88.898	1.00	20.19
	ATOM	3760	CG	ARG	A	474	40.866	47.352	88.831	1.00	28.48
60	ATOM	3761	CD	ARG	A	474	41.871	47.869	87.832	1.00	34.41
	ATOM	3762	NE	ARG	A	474	42.258	49.245	88.093	1.00	40.09
	ATOM	3763	CZ	ARG	A	474	42.927	49.938	87.185	1.00	51.25
	ATOM	3764	NH1	ARG	A	474	43.220	49.376	86.019	1.00	24.79
	ATOM	3765	NH2	ARG	A	474	43.316	51.199	87.444	1.00	20.43
	ATOM	3766	N	TRP	A	475	36.791	49.259	89.178	1.00	25.32



	ATOM	3767	CA	TRP	A	475	35.862	50.332	89.400	1.00	26.77
	ATOM	3768	C	TRP	A	475	34.881	49.962	90.474	1.00	27.52
	ATOM	3769	O	TRP	A	475	34.749	50.633	91.475	1.00	29.64
5	ATOM	3770	CB	TRP	A	475	35.199	50.804	88.093	1.00	27.95
	ATOM	3771	CG	TRP	A	475	36.047	51.819	87.361	1.00	32.11
	ATOM	3772	CD1	TRP	A	475	36.873	51.592	86.298	1.00	35.65
	ATOM	3773	CD2	TRP	A	475	36.161	53.217	87.648	1.00	31.62
	ATOM	3774	NE1	TRP	A	475	37.484	52.748	85.904	1.00	34.92
10	ATOM	3775	CE2	TRP	A	475	37.054	53.763	86.707	1.00	36.16
	ATOM	3776	CE3	TRP	A	475	35.588	54.040	88.606	1.00	32.63
	ATOM	3777	CZ2	TRP	A	475	37.372	55.112	86.719	1.00	36.24
	ATOM	3778	CZ3	TRP	A	475	35.897	55.375	88.616	1.00	34.74
	ATOM	3779	CH2	TRP	A	475	36.777	55.901	87.685	1.00	35.77
15	ATOM	3780	N	ILE	A	476	34.234	48.847	90.279	1.00	26.36
	ATOM	3781	CA	ILE	A	476	33.268	48.386	91.235	1.00	28.33
	ATOM	3782	C	ILE	A	476	33.771	48.315	92.681	1.00	34.20
	ATOM	3783	O	ILE	A	476	33.056	48.595	93.637	1.00	36.89
	ATOM	3784	CB	ILE	A	476	32.722	47.070	90.761	1.00	32.23
20	ATOM	3785	CG1	ILE	A	476	31.993	47.308	89.443	1.00	30.49
	ATOM	3786	CG2	ILE	A	476	31.864	46.376	91.851	1.00	34.86
	ATOM	3787	CD1	ILE	A	476	31.595	46.005	88.756	1.00	33.04
	ATOM	3788	N	THR	A	477	35.010	47.934	92.860	1.00	27.27
	ATOM	3789	CA	THR	A	477	35.558	47.846	94.194	1.00	24.15
25	ATOM	3790	C	THR	A	477	36.416	49.052	94.523	1.00	27.30
	ATOM	3791	O	THR	A	477	37.120	49.065	95.519	1.00	27.36
	ATOM	3792	CB	THR	A	477	36.402	46.578	94.257	1.00	32.13
	ATOM	3793	OG1	THR	A	477	37.593	46.848	93.557	1.00	29.48
	ATOM	3794	CG2	THR	A	477	35.634	45.470	93.530	1.00	16.94
30	ATOM	3795	N	ALA	A	478	36.371	50.097	93.695	1.00	22.33
	ATOM	3796	CA	ALA	A	478	37.164	51.260	93.988	1.00	20.44
	ATOM	3797	C	ALA	A	478	36.890	51.843	95.390	1.00	32.94
	ATOM	3798	O	ALA	A	478	35.786	51.756	95.922	1.00	34.38
	ATOM	3799	CB	ALA	A	478	36.938	52.343	92.942	1.00	19.26
35	ATOM	3800	N	LYS	A	479	37.931	52.469	95.970	1.00	29.65
	ATOM	3801	CA	LYS	A	479	37.899	53.168	97.243	1.00	27.30
	ATOM	3802	C	LYS	A	479	38.575	54.512	97.051	1.00	36.54
	ATOM	3803	O	LYS	A	479	39.378	54.692	96.118	1.00	34.13
	ATOM	3804	CB	LYS	A	479	38.457	52.410	98.417	1.00	28.01
40	ATOM	3805	CG	LYS	A	479	37.696	51.116	98.631	1.00	51.38
	ATOM	3806	CD	LYS	A	479	37.115	50.880	100.021	1.00	67.24
	ATOM	3807	CE	LYS	A	479	35.804	50.103	99.931	1.00	87.12
	ATOM	3808	NZ	LYS	A	479	35.711	48.948	100.841	1.00	85.55
	ATOM	3809	N	GLU	A	480	38.241	55.477	97.900	1.00	36.30
45	ATOM	3810	CA	GLU	A	480	38.843	56.793	97.751	1.00	34.79
	ATOM	3811	C	GLU	A	480	40.261	56.707	97.220	1.00	34.79
	ATOM	3812	O	GLU	A	480	40.613	57.332	96.234	1.00	34.10
	ATOM	3813	CB	GLU	A	480	38.899	57.565	99.078	1.00	36.21
	ATOM	3814	CG	GLU	A	480	37.709	58.500	99.303	1.00	63.85
50	ATOM	3815	CD	GLU	A	480	37.601	59.511	98.214	1.00	100.00
	ATOM	3816	OE1	GLU	A	480	38.457	59.648	97.357	1.00	100.00
	ATOM	3817	OE2	GLU	A	480	36.491	60.209	98.288	1.00	100.00
	ATOM	3818	N	ASP	A	481	41.080	55.946	97.904	1.00	24.69
	ATOM	3819	CA	ASP	A	481	42.451	55.860	97.519	1.00	23.87
55	ATOM	3820	C	ASP	A	481	42.771	55.314	96.132	1.00	34.51
	ATOM	3821	O	ASP	A	481	43.925	55.312	95.721	1.00	39.44
	ATOM	3822	CB	ASP	A	481	43.262	55.155	98.611	1.00	25.29
	ATOM	3823	CG	ASP	A	481	43.072	53.668	98.575	1.00	39.58
	ATOM	3824	OD1	ASP	A	481	42.471	53.029	97.708	1.00	46.00
60	ATOM	3825	OD2	ASP	A	481	43.698	53.107	99.567	1.00	39.59
	ATOM	3826	N	ASP	A	482	41.788	54.881	95.373	1.00	30.70
	ATOM	3827	CA	ASP	A	482	42.098	54.379	94.024	1.00	31.73
	ATOM	3828	C	ASP	A	482	41.725	55.307	92.859	1.00	34.17
	ATOM	3829	O	ASP	A	482	42.158	55.150	91.717	1.00	35.45
	ATOM	3830	CB	ASP	A	482	41.399	53.022	93.756	1.00	33.31

	ATOM	3831	CG	ASP	A	482	41.686	51.970	94.779	1.00	38.90
	ATOM	3832	OD1	ASP	A	482	42.810	51.514	94.992	1.00	42.45
	ATOM	3833	OD2	ASP	A	482	40.606	51.625	95.440	1.00	40.17
	ATOM	3834	N	LEU	A	483	40.863	56.246	93.146	1.00	29.93
5	ATOM	3835	CA	LEU	A	483	40.352	57.159	92.160	1.00	27.80
	ATOM	3836	C	LEU	A	483	41.434	57.943	91.410	1.00	40.70
	ATOM	3837	O	LEU	A	483	41.386	58.102	90.180	1.00	40.76
	ATOM	3838	CB	LEU	A	483	39.265	58.049	92.819	1.00	22.54
10	ATOM	3839	CG	LEU	A	483	38.148	57.240	93.488	1.00	20.75
	ATOM	3840	CD1	LEU	A	483	37.170	58.165	94.197	1.00	19.29
	ATOM	3841	CD2	LEU	A	483	37.389	56.467	92.414	1.00	21.46
	ATOM	3842	N	ASN	A	484	42.410	58.446	92.162	1.00	36.15
	ATOM	3843	CA	ASN	A	484	43.459	59.225	91.571	1.00	34.08
	ATOM	3844	C	ASN	A	484	44.168	58.524	90.429	1.00	39.51
15	ATOM	3845	O	ASN	A	484	44.456	59.091	89.359	1.00	38.59
	ATOM	3846	CB	ASN	A	484	44.495	59.602	92.618	1.00	34.26
	ATOM	3847	CG	ASN	A	484	45.807	59.955	91.941	1.00	100.00
	ATOM	3848	OD1	ASN	A	484	45.878	60.940	91.171	1.00	100.00
20	ATOM	3849	ND2	ASN	A	484	46.836	59.134	92.186	1.00	100.00
	ATOM	3850	N	SER	A	485	44.472	57.268	90.698	1.00	35.37
	ATOM	3851	CA	SER	A	485	45.202	56.417	89.791	1.00	32.79
	ATOM	3852	C	SER	A	485	44.522	56.140	88.484	1.00	32.26
	ATOM	3853	O	SER	A	485	45.159	55.925	87.463	1.00	32.44
25	ATOM	3854	CB	SER	A	485	45.565	55.132	90.477	1.00	38.65
	ATOM	3855	OG	SER	A	485	46.040	55.437	91.777	1.00	62.66
	ATOM	3856	N	PHE	A	486	43.222	56.110	88.491	1.00	27.13
	ATOM	3857	CA	PHE	A	486	42.631	55.809	87.233	1.00	28.26
	ATOM	3858	C	PHE	A	486	43.193	56.772	86.264	1.00	32.12
30	ATOM	3859	O	PHE	A	486	43.423	57.910	86.604	1.00	32.02
	ATOM	3860	CB	PHE	A	486	41.101	55.819	87.198	1.00	31.01
	ATOM	3861	CG	PHE	A	486	40.471	54.807	88.132	1.00	27.04
	ATOM	3862	CD1	PHE	A	486	40.504	53.425	87.911	1.00	22.43
	ATOM	3863	CD2	PHE	A	486	39.805	55.293	89.253	1.00	21.40
35	ATOM	3864	CE1	PHE	A	486	39.896	52.538	88.804	1.00	19.69
	ATOM	3865	CE2	PHE	A	486	39.224	54.426	90.174	1.00	19.20
	ATOM	3866	CZ	PHE	A	486	39.245	53.051	89.927	1.00	15.13
	ATOM	3867	N	ASN	A	487	43.455	56.279	85.089	1.00	34.97
	ATOM	3868	CA	ASN	A	487	44.032	57.092	84.070	1.00	38.06
40	ATOM	3869	C	ASN	A	487	43.491	56.622	82.758	1.00	43.55
	ATOM	3870	O	ASN	A	487	42.951	55.537	82.604	1.00	46.30
	ATOM	3871	CB	ASN	A	487	45.591	57.038	84.085	1.00	43.93
	ATOM	3872	CG	ASN	A	487	46.196	58.169	83.302	1.00	56.10
	ATOM	3873	OD1	ASN	A	487	46.057	58.189	82.077	1.00	42.12
45	ATOM	3874	ND2	ASN	A	487	46.829	59.112	84.007	1.00	65.62
	ATOM	3875	N	ALA	A	488	43.662	57.435	81.781	1.00	39.34
	ATOM	3876	CA	ALA	A	488	43.201	57.055	80.472	1.00	38.25
	ATOM	3877	C	ALA	A	488	44.024	55.900	79.809	1.00	43.58
	ATOM	3878	O	ALA	A	488	43.596	55.317	78.834	1.00	44.11
50	ATOM	3879	CB	ALA	A	488	43.153	58.314	79.621	1.00	37.54
	ATOM	3880	N	THR	A	489	45.207	55.555	80.314	1.00	38.34
	ATOM	3881	CA	THR	A	489	45.996	54.499	79.715	1.00	36.16
	ATOM	3882	C	THR	A	489	45.270	53.181	79.792	1.00	45.74
	ATOM	3883	O	THR	A	489	45.476	52.233	79.057	1.00	47.78
55	ATOM	3884	CB	THR	A	489	47.296	54.458	80.503	1.00	31.01
	ATOM	3885	OG1	THR	A	489	46.961	54.457	81.872	1.00	35.33
	ATOM	3886	CG2	THR	A	489	47.993	55.771	80.229	1.00	28.28
	ATOM	3887	N	ASP	A	490	44.337	53.182	80.708	1.00	46.75
	ATOM	3888	CA	ASP	A	490	43.560	52.018	80.972	1.00	51.49
60	ATOM	3889	C	ASP	A	490	42.759	51.515	79.786	1.00	52.21
	ATOM	3890	O	ASP	A	490	42.396	50.342	79.651	1.00	54.75
	ATOM	3891	CB	ASP	A	490	42.676	52.345	82.184	1.00	54.04
	ATOM	3892	CG	ASP	A	490	43.413	52.884	83.380	1.00	53.83
	ATOM	3893	OD1	ASP	A	490	44.621	52.777	83.616	1.00	62.93
	ATOM	3894	OD2	ASP	A	490	42.565	53.446	84.165	1.00	35.66

	ATOM	3895	N	LEU	A	491	42.486	52.450	78.938	1.00	42.42
	ATOM	3896	CA	LEU	A	491	41.752	52.250	77.723	1.00	43.54
	ATOM	3897	C	LEU	A	491	42.712	51.977	76.585	1.00	43.97
5	ATOM	3898	O	LEU	A	491	42.340	51.438	75.588	1.00	42.53
	ATOM	3899	CB	LEU	A	491	40.984	53.528	77.421	1.00	44.89
	ATOM	3900	CG	LEU	A	491	39.794	53.747	78.338	1.00	48.31
	ATOM	3901	CD1	LEU	A	491	38.558	54.171	77.552	1.00	49.16
	ATOM	3902	CD2	LEU	A	491	39.377	52.494	79.125	1.00	39.24
10	ATOM	3903	N	LYS	A	492	43.958	52.403	76.754	1.00	42.32
	ATOM	3904	CA	LYS	A	492	44.999	52.320	75.696	1.00	44.57
	ATOM	3905	C	LYS	A	492	44.826	51.165	74.680	1.00	49.08
	ATOM	3906	O	LYS	A	492	44.810	51.343	73.473	1.00	49.66
	ATOM	3907	CB	LYS	A	492	46.359	52.177	76.401	1.00	48.47
	ATOM	3908	CG	LYS	A	492	47.487	52.883	75.629	1.00	88.73
15	ATOM	3909	CD	LYS	A	492	48.852	52.537	76.197	1.00	100.00
	ATOM	3910	CE	LYS	A	492	48.786	51.460	77.300	1.00	100.00
	ATOM	3911	NZ	LYS	A	492	50.103	50.896	77.541	1.00	100.00
	ATOM	3912	N	ASP	A	493	44.711	49.917	75.227	1.00	41.86
20	ATOM	3913	CA	ASP	A	493	44.664	48.740	74.372	1.00	40.17
	ATOM	3914	C	ASP	A	493	43.220	48.162	74.215	1.00	44.29
	ATOM	3915	O	ASP	A	493	43.031	46.973	73.889	1.00	42.00
	ATOM	3916	CB	ASP	A	493	45.560	47.699	75.015	1.00	41.52
	ATOM	3917	CG	ASP	A	493	47.021	48.130	74.956	1.00	67.01
	ATOM	3918	OD1	ASP	A	493	47.467	48.451	73.856	1.00	77.10
25	ATOM	3919	OD2	ASP	A	493	47.678	48.131	75.984	1.00	57.19
	ATOM	3920	N	LEU	A	494	42.193	49.005	74.475	1.00	40.69
	ATOM	3921	CA	LEU	A	494	40.789	48.512	74.526	1.00	36.32
	ATOM	3922	C	LEU	A	494	39.992	48.877	73.245	1.00	37.76
	ATOM	3923	O	LEU	A	494	39.897	50.029	72.863	1.00	38.93
30	ATOM	3924	CB	LEU	A	494	40.098	49.125	75.733	1.00	32.52
	ATOM	3925	CG	LEU	A	494	40.376	48.433	77.063	1.00	30.66
	ATOM	3926	CD1	LEU	A	494	39.229	48.580	78.052	1.00	30.39
	ATOM	3927	CD2	LEU	A	494	40.611	46.925	76.918	1.00	23.54
	ATOM	3928	N	SER	A	495	39.477	47.825	72.631	1.00	25.56
35	ATOM	3929	CA	SER	A	495	38.674	48.017	71.457	1.00	22.23
	ATOM	3930	C	SER	A	495	37.344	48.670	71.856	1.00	31.27
	ATOM	3931	O	SER	A	495	36.968	48.706	73.038	1.00	31.21
	ATOM	3932	CB	SER	A	495	38.380	46.705	70.795	1.00	20.88
	ATOM	3933	OG	SER	A	495	37.192	46.143	71.317	1.00	33.60
40	ATOM	3934	N	SER	A	496	36.627	49.184	70.865	1.00	29.48
	ATOM	3935	CA	SER	A	496	35.363	49.821	71.139	1.00	26.67
	ATOM	3936	C	SER	A	496	34.495	48.747	71.744	1.00	29.54
	ATOM	3937	O	SER	A	496	33.744	48.960	72.697	1.00	24.80
	ATOM	3938	CB	SER	A	496	34.760	50.441	69.894	1.00	24.67
45	ATOM	3939	OG	SER	A	496	33.749	49.597	69.397	1.00	48.80
	ATOM	3940	N	HIS	A	497	34.674	47.547	71.219	1.00	26.61
	ATOM	3941	CA	HIS	A	497	33.949	46.383	71.750	1.00	29.22
	ATOM	3942	C	HIS	A	497	34.156	46.148	73.275	1.00	37.24
	ATOM	3943	O	HIS	A	497	33.238	45.863	74.041	1.00	38.21
50	ATOM	3944	CB	HIS	A	497	34.364	45.106	70.978	1.00	30.69
	ATOM	3945	CG	HIS	A	497	34.182	45.348	69.545	1.00	34.29
	ATOM	3946	ND1	HIS	A	497	32.943	45.204	68.962	1.00	35.42
	ATOM	3947	CD2	HIS	A	497	35.054	45.833	68.622	1.00	36.68
	ATOM	3948	CE1	HIS	A	497	33.075	45.531	67.702	1.00	35.05
55	ATOM	3949	NE2	HIS	A	497	34.330	45.932	67.462	1.00	35.88
	ATOM	3950	N	GLN	A	498	35.406	46.243	73.715	1.00	33.56
	ATOM	3951	CA	GLN	A	498	35.737	46.008	75.094	1.00	29.69
	ATOM	3952	C	GLN	A	498	35.263	47.122	75.965	1.00	27.11
	ATOM	3953	O	GLN	A	498	34.842	46.930	77.089	1.00	23.92
60	ATOM	3954	CB	GLN	A	498	37.221	45.659	75.248	1.00	29.95
	ATOM	3955	CG	GLN	A	498	37.582	44.317	74.544	1.00	25.78
	ATOM	3956	CD	GLN	A	498	39.074	44.084	74.535	1.00	28.64
	ATOM	3957	OE1	GLN	A	498	39.796	44.891	73.960	1.00	26.62
	ATOM	3958	NE2	GLN	A	498	39.561	43.049	75.218	1.00	20.96

	ATOM	3959	N	LEU	A	499	35.289	48.301	75.431	1.00	27.13
	ATOM	3960	CA	LEU	A	499	34.819	49.396	76.229	1.00	29.32
	ATOM	3961	C	LEU	A	499	33.351	49.162	76.632	1.00	28.39
5	ATOM	3962	O	LEU	A	499	32.893	49.361	77.780	1.00	29.41
	ATOM	3963	CB	LEU	A	499	34.991	50.709	75.436	1.00	31.70
	ATOM	3964	CG	LEU	A	499	36.242	51.512	75.788	1.00	39.76
	ATOM	3965	CD1	LEU	A	499	37.335	50.572	76.278	1.00	42.91
	ATOM	3966	CD2	LEU	A	499	36.718	52.268	74.555	1.00	39.08
10	ATOM	3967	N	ASN	A	500	32.606	48.737	75.642	1.00	15.23
	ATOM	3968	CA	ASN	A	500	31.213	48.508	75.828	1.00	13.44
	ATOM	3969	C	ASN	A	500	30.919	47.455	76.864	1.00	18.98
	ATOM	3970	O	ASN	A	500	29.997	47.602	77.705	1.00	19.01
	ATOM	3971	CB	ASN	A	500	30.604	48.129	74.476	1.00	12.21
	ATOM	3972	CG	ASN	A	500	29.093	48.214	74.426	1.00	37.49
15	ATOM	3973	OD1	ASN	A	500	28.433	49.151	74.930	1.00	36.17
	ATOM	3974	ND2	ASN	A	500	28.542	47.218	73.787	1.00	18.34
	ATOM	3975	N	GLU	A	501	31.699	46.366	76.743	1.00	14.20
	ATOM	3976	CA	GLU	A	501	31.626	45.224	77.625	1.00	13.27
20	ATOM	3977	C	GLU	A	501	31.948	45.676	79.063	1.00	21.59
	ATOM	3978	O	GLU	A	501	31.175	45.463	80.009	1.00	25.02
	ATOM	3979	CB	GLU	A	501	32.446	44.057	77.053	1.00	14.95
	ATOM	3980	CG	GLU	A	501	32.371	42.827	77.989	1.00	30.40
	ATOM	3981	CD	GLU	A	501	30.946	42.399	78.199	1.00	39.28
25	ATOM	3982	OE1	GLU	A	501	30.050	42.672	77.413	1.00	76.70
	ATOM	3983	OE2	GLU	A	501	30.780	41.694	79.292	1.00	46.10
	ATOM	3984	N	PHE	A	502	33.059	46.400	79.226	1.00	18.07
	ATOM	3985	CA	PHE	A	502	33.395	46.952	80.530	1.00	21.54
	ATOM	3986	C	PHE	A	502	32.179	47.679	81.125	1.00	23.38
30	ATOM	3987	O	PHE	A	502	31.786	47.491	82.301	1.00	21.47
	ATOM	3988	CB	PHE	A	502	34.507	48.012	80.327	1.00	26.05
	ATOM	3989	CG	PHE	A	502	34.590	49.082	81.393	1.00	30.41
	ATOM	3990	CD1	PHE	A	502	35.085	48.781	82.662	1.00	29.68
	ATOM	3991	CD2	PHE	A	502	34.211	50.402	81.132	1.00	39.16
35	ATOM	3992	CE1	PHE	A	502	35.183	49.773	83.638	1.00	31.12
	ATOM	3993	CE2	PHE	A	502	34.305	51.414	82.096	1.00	40.46
	ATOM	3994	CZ	PHE	A	502	34.812	51.090	83.352	1.00	35.41
	ATOM	3995	N	LEU	A	503	31.613	48.557	80.288	1.00	18.39
	ATOM	3996	CA	LEU	A	503	30.487	49.343	80.692	1.00	22.78
40	ATOM	3997	C	LEU	A	503	29.337	48.491	81.178	1.00	31.04
	ATOM	3998	O	LEU	A	503	28.768	48.784	82.243	1.00	29.23
	ATOM	3999	CB	LEU	A	503	30.002	50.325	79.619	1.00	24.68
	ATOM	4000	CG	LEU	A	503	30.888	51.571	79.465	1.00	27.47
	ATOM	4001	CD1	LEU	A	503	30.415	52.376	78.259	1.00	24.86
45	ATOM	4002	CD2	LEU	A	503	30.860	52.420	80.733	1.00	20.54
	ATOM	4003	N	ALA	A	504	29.012	47.444	80.378	1.00	27.79
	ATOM	4004	CA	ALA	A	504	27.911	46.474	80.643	1.00	24.63
	ATOM	4005	C	ALA	A	504	28.140	45.752	81.939	1.00	27.71
	ATOM	4006	O	ALA	A	504	27.265	45.577	82.817	1.00	28.62
50	ATOM	4007	CB	ALA	A	504	27.762	45.482	79.496	1.00	23.87
	ATOM	4008	N	GLN	A	505	29.382	45.344	82.066	1.00	22.16
	ATOM	4009	CA	GLN	A	505	29.738	44.710	83.299	1.00	21.02
	ATOM	4010	C	GLN	A	505	29.489	45.737	84.423	1.00	31.26
	ATOM	4011	O	GLN	A	505	28.787	45.507	85.413	1.00	32.31
55	ATOM	4012	CB	GLN	A	505	31.202	44.209	83.270	1.00	18.95
	ATOM	4013	CG	GLN	A	505	31.367	42.881	82.495	1.00	13.72
	ATOM	4014	CD	GLN	A	505	32.806	42.549	82.136	1.00	31.75
	ATOM	4015	OE1	GLN	A	505	33.796	42.969	82.768	1.00	43.14
	ATOM	4016	NE2	GLN	A	505	32.923	41.781	81.085	1.00	39.34
60	ATOM	4017	N	THR	A	506	30.056	46.918	84.263	1.00	25.95
	ATOM	4018	CA	THR	A	506	29.855	47.864	85.302	1.00	23.64
	ATOM	4019	C	THR	A	506	28.411	48.101	85.579	1.00	23.89
	ATOM	4020	O	THR	A	506	27.923	47.999	86.696	1.00	22.75
	ATOM	4021	CB	THR	A	506	30.600	49.130	85.008	1.00	23.72
	ATOM	4022	OG1	THR	A	506	31.938	48.749	84.742	1.00	27.18

	ATOM	4023	CG2	THR	A	506	30.502	49.961	86.260	1.00	11.12
	ATOM	4024	N	LEU	A	507	27.727	48.408	84.518	1.00	17.92
	ATOM	4025	CA	LEU	A	507	26.334	48.683	84.604	1.00	17.22
5	ATOM	4026	C	LEU	A	507	25.618	47.683	85.442	1.00	25.65
	ATOM	4027	O	LEU	A	507	24.816	48.073	86.266	1.00	27.85
	ATOM	4028	CB	LEU	A	507	25.693	48.686	83.224	1.00	17.85
	ATOM	4029	CG	LEU	A	507	24.207	48.930	83.336	1.00	21.02
	ATOM	4030	CD1	LEU	A	507	23.974	50.290	83.970	1.00	22.48
10	ATOM	4031	CD2	LEU	A	507	23.599	48.919	81.949	1.00	15.25
	ATOM	4032	N	GLN	A	508	25.878	46.395	85.194	1.00	21.35
	ATOM	4033	CA	GLN	A	508	25.215	45.333	85.979	1.00	18.08
	ATOM	4034	C	GLN	A	508	25.386	45.561	87.508	1.00	34.24
	ATOM	4035	O	GLN	A	508	24.653	45.017	88.343	1.00	34.04
15	ATOM	4036	CB	GLN	A	508	25.713	43.917	85.608	1.00	10.94
	ATOM	4037	CG	GLN	A	508	25.366	43.446	84.191	1.00	26.42
	ATOM	4038	CD	GLN	A	508	25.635	41.944	84.002	1.00	52.93
	ATOM	4039	OE1	GLN	A	508	26.550	41.396	84.628	1.00	32.89
	ATOM	4040	NE2	GLN	A	508	24.864	41.252	83.147	1.00	34.36
20	ATOM	4041	N	ARG	A	509	26.380	46.361	87.901	1.00	33.73
	ATOM	4042	CA	ARG	A	509	26.600	46.614	89.328	1.00	32.53
	ATOM	4043	C	ARG	A	509	26.153	48.016	89.727	1.00	33.63
	ATOM	4044	O	ARG	A	509	26.509	48.522	90.777	1.00	31.08
	ATOM	4045	CB	ARG	A	509	28.055	46.440	89.760	1.00	29.22
25	ATOM	4046	CG	ARG	A	509	28.553	45.014	89.733	1.00	29.78
	ATOM	4047	CD	ARG	A	509	27.744	44.054	90.609	1.00	30.86
	ATOM	4048	NE	ARG	A	509	28.533	43.602	91.756	1.00	82.23
	ATOM	4049	CZ	ARG	A	509	29.842	43.274	91.726	1.00	100.00
	ATOM	4050	NH1	ARG	A	509	30.579	43.315	90.613	1.00	92.85
30	ATOM	4051	NH2	ARG	A	509	30.430	42.881	92.855	1.00	91.85
	ATOM	4052	N	ALA	A	510	25.384	48.659	88.880	1.00	32.59
	ATOM	4053	CA	ALA	A	510	24.952	49.985	89.215	1.00	32.51
	ATOM	4054	C	ALA	A	510	24.151	49.845	90.479	1.00	34.97
	ATOM	4055	O	ALA	A	510	23.601	48.785	90.693	1.00	37.57
35	ATOM	4056	CB	ALA	A	510	24.189	50.622	88.063	1.00	32.91
	ATOM	4057	N	PRO	A	511	24.174	50.856	91.334	1.00	25.14
	ATOM	4058	CA	PRO	A	511	24.867	52.102	91.052	1.00	21.00
	ATOM	4059	C	PRO	A	511	26.217	52.178	91.694	1.00	29.23
	ATOM	4060	O	PRO	A	511	26.445	51.601	92.723	1.00	28.16
40	ATOM	4061	CB	PRO	A	511	24.102	53.169	91.818	1.00	21.55
	ATOM	4062	CG	PRO	A	511	23.316	52.432	92.886	1.00	28.68
	ATOM	4063	CD	PRO	A	511	23.169	50.995	92.407	1.00	25.16
	ATOM	4064	N	LEU	A	512	27.094	52.968	91.109	1.00	32.95
	ATOM	4065	CA	LEU	A	512	28.394	53.188	91.686	1.00	33.42
45	ATOM	4066	C	LEU	A	512	28.287	54.512	92.397	1.00	38.65
	ATOM	4067	O	LEU	A	512	27.388	55.305	92.114	1.00	40.69
	ATOM	4068	CB	LEU	A	512	29.453	53.350	90.587	1.00	34.40
	ATOM	4069	CG	LEU	A	512	30.178	52.049	90.216	1.00	40.13
	ATOM	4070	CD1	LEU	A	512	29.222	51.086	89.508	1.00	39.04
50	ATOM	4071	CD2	LEU	A	512	31.322	52.385	89.273	1.00	44.61
	ATOM	4072	N	PRO	A	513	29.196	54.781	93.312	1.00	31.05
	ATOM	4073	CA	PRO	A	513	29.167	56.058	94.008	1.00	27.16
	ATOM	4074	C	PRO	A	513	29.296	57.203	93.019	1.00	23.76
	ATOM	4075	O	PRO	A	513	30.121	57.182	92.118	1.00	27.17
55	ATOM	4076	CB	PRO	A	513	30.387	56.013	94.948	1.00	25.59
	ATOM	4077	CG	PRO	A	513	30.702	54.542	95.149	1.00	27.14
	ATOM	4078	CD	PRO	A	513	30.030	53.779	94.032	1.00	25.00
	ATOM	4079	N	LEU	A	514	28.478	58.203	93.185	1.00	22.92
	ATOM	4080	CA	LEU	A	514	28.516	59.350	92.279	1.00	27.55
60	ATOM	4081	C	LEU	A	514	29.930	59.766	91.940	1.00	31.95
	ATOM	4082	O	LEU	A	514	30.287	59.908	90.765	1.00	37.11
	ATOM	4083	CB	LEU	A	514	27.673	60.564	92.741	1.00	30.03
	ATOM	4084	CG	LEU	A	514	27.428	61.626	91.648	1.00	32.87
	ATOM	4085	CD1	LEU	A	514	26.648	61.082	90.440	1.00	28.48
	ATOM	4086	CD2	LEU	A	514	26.699	62.780	92.272	1.00	31.16

	ATOM	4087	N	GLY	A	515	30.731	59.989	92.979	1.00	24.42
	ATOM	4088	CA	GLY	A	515	32.131	60.384	92.811	1.00	25.59
	ATOM	4089	C	GLY	A	515	32.902	59.472	91.835	1.00	33.83
5	ATOM	4090	O	GLY	A	515	33.746	59.914	91.035	1.00	35.67
	ATOM	4091	N	HIS	A	516	32.602	58.180	91.891	1.00	26.40
	ATOM	4092	CA	HIS	A	516	33.257	57.255	90.998	1.00	25.86
	ATOM	4093	C	HIS	A	516	32.911	57.578	89.560	1.00	27.62
	ATOM	4094	O	HIS	A	516	33.786	57.596	88.695	1.00	28.67
10	ATOM	4095	CB	HIS	A	516	32.826	55.814	91.282	1.00	25.39
	ATOM	4096	CG	HIS	A	516	33.452	55.283	92.505	1.00	27.96
	ATOM	4097	ND1	HIS	A	516	33.635	56.092	93.602	1.00	30.14
	ATOM	4098	CD2	HIS	A	516	33.929	54.037	92.791	1.00	27.79
	ATOM	4099	CE1	HIS	A	516	34.205	55.336	94.534	1.00	27.58
	ATOM	4100	NE2	HIS	A	516	34.390	54.099	94.085	1.00	27.02
15	ATOM	4101	N	ILE	A	517	31.617	57.815	89.315	1.00	21.40
	ATOM	4102	CA	ILE	A	517	31.137	58.107	87.973	1.00	22.75
	ATOM	4103	C	ILE	A	517	31.706	59.424	87.462	1.00	31.09
	ATOM	4104	O	ILE	A	517	32.246	59.558	86.352	1.00	28.78
20	ATOM	4105	CB	ILE	A	517	29.601	58.024	87.930	1.00	27.12
	ATOM	4106	CG1	ILE	A	517	29.225	56.610	88.312	1.00	29.40
	ATOM	4107	CG2	ILE	A	517	29.013	58.285	86.536	1.00	25.49
	ATOM	4108	CD1	ILE	A	517	29.305	55.665	87.105	1.00	34.77
	ATOM	4109	N	LYS	A	518	31.589	60.416	88.308	1.00	27.28
25	ATOM	4110	CA	LYS	A	518	32.108	61.690	87.955	1.00	23.77
	ATOM	4111	C	LYS	A	518	33.558	61.482	87.485	1.00	24.03
	ATOM	4112	O	LYS	A	518	33.982	61.831	86.391	1.00	26.08
	ATOM	4113	CB	LYS	A	518	32.038	62.557	89.210	1.00	24.00
	ATOM	4114	CG	LYS	A	518	30.641	63.060	89.591	1.00	19.24
30	ATOM	4115	CD	LYS	A	518	30.721	64.276	90.537	1.00	27.93
	ATOM	4116	CE	LYS	A	518	29.379	64.877	90.962	1.00	37.11
	ATOM	4117	NZ	LYS	A	518	28.924	65.988	90.104	1.00	52.30
	ATOM	4118	N	ARG	A	519	34.322	60.899	88.361	1.00	17.90
	ATOM	4119	CA	ARG	A	519	35.703	60.636	88.098	1.00	20.80
35	ATOM	4120	C	ARG	A	519	35.862	59.874	86.802	1.00	28.98
	ATOM	4121	O	ARG	A	519	36.812	60.084	86.051	1.00	29.86
	ATOM	4122	CB	ARG	A	519	36.313	59.844	89.276	1.00	20.56
	ATOM	4123	CG	ARG	A	519	37.721	59.308	89.036	1.00	29.02
	ATOM	4124	CD	ARG	A	519	38.668	60.320	88.404	1.00	41.17
40	ATOM	4125	NE	ARG	A	519	40.086	60.008	88.616	1.00	59.84
	ATOM	4126	CZ	ARG	A	519	41.076	60.858	88.349	1.00	50.77
	ATOM	4127	NH1	ARG	A	519	40.838	62.073	87.880	1.00	31.21
	ATOM	4128	NH2	ARG	A	519	42.329	60.486	88.543	1.00	31.86
	ATOM	4129	N	MET	A	520	34.937	58.956	86.565	1.00	25.08
45	ATOM	4130	CA	MET	A	520	34.979	58.121	85.379	1.00	24.56
	ATOM	4131	C	MET	A	520	34.906	58.918	84.086	1.00	29.37
	ATOM	4132	O	MET	A	520	35.651	58.687	83.114	1.00	27.92
	ATOM	4133	CB	MET	A	520	33.905	57.007	85.442	1.00	26.98
	ATOM	4134	CG	MET	A	520	34.082	55.902	84.399	1.00	28.02
50	ATOM	4135	SD	MET	A	520	32.830	54.591	84.479	1.00	27.87
	ATOM	4136	CE	MET	A	520	33.246	53.825	86.070	1.00	22.09
	ATOM	4137	N	GLN	A	521	33.982	59.864	84.067	1.00	28.32
	ATOM	4138	CA	GLN	A	521	33.838	60.672	82.886	1.00	28.34
	ATOM	4139	C	GLN	A	521	35.067	61.540	82.785	1.00	36.52
55	ATOM	4140	O	GLN	A	521	35.514	61.879	81.707	1.00	35.87
	ATOM	4141	CB	GLN	A	521	32.514	61.451	82.863	1.00	28.34
	ATOM	4142	CG	GLN	A	521	32.564	62.774	82.079	1.00	9.68
	ATOM	4143	CD	GLN	A	521	32.890	62.572	80.616	1.00	27.55
	ATOM	4144	OE1	GLN	A	521	33.382	63.491	79.924	1.00	28.25
60	ATOM	4145	NE2	GLN	A	521	32.657	61.368	80.142	1.00	25.70
	ATOM	4146	N	GLU	A	522	35.626	61.827	83.963	1.00	36.19
	ATOM	4147	CA	GLU	A	522	36.818	62.648	84.171	1.00	36.13
	ATOM	4148	C	GLU	A	522	38.136	62.046	83.662	1.00	42.48
	ATOM	4149	O	GLU	A	522	39.099	62.735	83.335	1.00	42.40
	ATOM	4150	CB	GLU	A	522	36.857	63.035	85.641	1.00	37.79

	ATOM	4151	CG	GLU	A	522	38.233	63.196	86.273	1.00	58.85
	ATOM	4152	CD	GLU	A	522	38.046	64.040	87.493	1.00	73.64
	ATOM	4153	OE1	GLU	A	522	37.006	64.641	87.709	1.00	45.66
	ATOM	4154	OE2	GLU	A	522	39.081	64.037	88.289	1.00	47.91
5	ATOM	4155	N	VAL	A	523	38.188	60.739	83.552	1.00	40.13
	ATOM	4156	CA	VAL	A	523	39.401	60.136	83.058	1.00	37.49
	ATOM	4157	C	VAL	A	523	39.205	59.351	81.778	1.00	38.88
	ATOM	4158	O	VAL	A	523	40.195	59.016	81.138	1.00	40.21
	ATOM	4159	CB	VAL	A	523	40.184	59.370	84.102	1.00	40.01
10	ATOM	4160	CG1	VAL	A	523	40.231	60.165	85.413	1.00	39.12
	ATOM	4161	CG2	VAL	A	523	39.534	58.017	84.320	1.00	39.82
	ATOM	4162	N	TYR	A	524	37.952	59.048	81.379	1.00	30.35
	ATOM	4163	CA	TYR	A	524	37.801	58.330	80.114	1.00	28.11
	ATOM	4164	C	TYR	A	524	37.061	59.144	79.074	1.00	33.14
15	ATOM	4165	O	TYR	A	524	37.076	58.802	77.908	1.00	35.84
	ATOM	4166	CB	TYR	A	524	37.281	56.878	80.119	1.00	25.56
	ATOM	4167	CG	TYR	A	524	37.941	55.960	81.111	1.00	20.87
	ATOM	4168	CD1	TYR	A	524	39.324	55.938	81.258	1.00	21.59
	ATOM	4169	CD2	TYR	A	524	37.170	55.083	81.879	1.00	19.80
20	ATOM	4170	CE1	TYR	A	524	39.905	55.063	82.176	1.00	25.64
	ATOM	4171	CE2	TYR	A	524	37.731	54.227	82.827	1.00	18.61
	ATOM	4172	CZ	TYR	A	524	39.116	54.231	82.969	1.00	19.81
	ATOM	4173	OH	TYR	A	524	39.706	53.402	83.863	1.00	23.92
	ATOM	4174	N	ASN	A	525	36.416	60.221	79.496	1.00	25.98
25	ATOM	4175	CA	ASN	A	525	35.687	61.088	78.588	1.00	25.01
	ATOM	4176	C	ASN	A	525	34.661	60.354	77.735	1.00	29.86
	ATOM	4177	O	ASN	A	525	34.533	60.535	76.499	1.00	29.39
	ATOM	4178	CB	ASN	A	525	36.637	61.922	77.739	1.00	29.55
	ATOM	4179	CG	ASN	A	525	35.949	62.980	76.894	1.00	30.32
30	ATOM	4180	OD1	ASN	A	525	36.460	63.332	75.850	1.00	32.77
	ATOM	4181	ND2	ASN	A	525	34.822	63.527	77.344	1.00	13.80
	ATOM	4182	N	PHE	A	526	33.924	59.512	78.436	1.00	24.21
	ATOM	4183	CA	PHE	A	526	32.900	58.745	77.807	1.00	25.14
	ATOM	4184	C	PHE	A	526	31.846	59.631	77.214	1.00	31.74
35	ATOM	4185	O	PHE	A	526	31.161	59.241	76.272	1.00	34.99
	ATOM	4186	CB	PHE	A	526	32.256	57.732	78.781	1.00	26.60
	ATOM	4187	CG	PHE	A	526	33.115	56.499	78.978	1.00	23.82
	ATOM	4188	CD1	PHE	A	526	34.017	56.080	78.000	1.00	25.00
	ATOM	4189	CD2	PHE	A	526	33.031	55.767	80.159	1.00	21.74
40	ATOM	4190	CE1	PHE	A	526	34.783	54.927	78.173	1.00	27.63
	ATOM	4191	CE2	PHE	A	526	33.817	54.634	80.370	1.00	25.42
	ATOM	4192	CZ	PHE	A	526	34.683	54.202	79.364	1.00	25.28
	ATOM	4193	N	ASN	A	527	31.689	60.815	77.760	1.00	28.22
	ATOM	4194	CA	ASN	A	527	30.657	61.688	77.214	1.00	31.18
45	ATOM	4195	C	ASN	A	527	30.884	62.046	75.744	1.00	33.17
	ATOM	4196	O	ASN	A	527	29.965	62.394	74.999	1.00	30.80
	ATOM	4197	CB	ASN	A	527	30.479	62.967	78.052	1.00	36.41
	ATOM	4198	CG	ASN	A	527	29.638	62.752	79.292	1.00	46.99
	ATOM	4199	OD1	ASN	A	527	29.647	63.571	80.209	1.00	36.82
50	ATOM	4200	ND2	ASN	A	527	28.922	61.636	79.338	1.00	43.55
	ATOM	4201	N	ALA	A	528	32.136	61.947	75.348	1.00	27.46
	ATOM	4202	CA	ALA	A	528	32.581	62.278	74.005	1.00	26.48
	ATOM	4203	C	ALA	A	528	32.335	61.188	72.950	1.00	32.09
	ATOM	4204	O	ALA	A	528	32.420	61.404	71.753	1.00	32.09
55	ATOM	4205	CB	ALA	A	528	34.076	62.584	74.105	1.00	26.04
	ATOM	4206	N	ILE	A	529	32.067	59.983	73.402	1.00	31.35
	ATOM	4207	CA	ILE	A	529	31.854	58.859	72.529	1.00	28.47
	ATOM	4208	C	ILE	A	529	30.492	58.904	71.887	1.00	35.96
	ATOM	4209	O	ILE	A	529	29.486	59.023	72.578	1.00	38.79
60	ATOM	4210	CB	ILE	A	529	32.103	57.544	73.264	1.00	30.17
	ATOM	4211	CG1	ILE	A	529	33.622	57.291	73.392	1.00	31.37
	ATOM	4212	CG2	ILE	A	529	31.428	56.411	72.489	1.00	27.63
	ATOM	4213	CD1	ILE	A	529	34.059	56.515	74.635	1.00	33.41
	ATOM	4214	N	ASN	A	530	30.462	58.806	70.559	1.00	34.86

	ATOM	4215	CA	ASN	A	530	29.196	58.841	69.852	1.00	36.44
	ATOM	4216	C	ASN	A	530	28.596	57.495	69.473	1.00	39.90
	ATOM	4217	O	ASN	A	530	27.452	57.437	69.043	1.00	41.37
5	ATOM	4218	CB	ASN	A	530	28.951	60.044	68.928	1.00	51.44
	ATOM	4219	CG	ASN	A	530	28.461	61.253	69.732	1.00	100.00
	ATOM	4220	OD1	ASN	A	530	27.652	61.109	70.665	1.00	100.00
	ATOM	4221	ND2	ASN	A	530	28.955	62.442	69.392	1.00	91.39
	ATOM	4222	N	ASN	A	531	29.368	56.403	69.688	1.00	30.37
10	ATOM	4223	CA	ASN	A	531	28.912	55.030	69.446	1.00	28.14
	ATOM	4224	C	ASN	A	531	27.696	54.753	70.360	1.00	32.80
	ATOM	4225	O	ASN	A	531	27.746	54.887	71.611	1.00	36.74
	ATOM	4226	CB	ASN	A	531	30.092	54.066	69.690	1.00	24.31
	ATOM	4227	CG	ASN	A	531	29.770	52.601	69.730	1.00	34.44
	ATOM	4228	OD1	ASN	A	531	28.795	52.182	70.359	1.00	36.49
15	ATOM	4229	ND2	ASN	A	531	30.643	51.810	69.099	1.00	30.57
	ATOM	4230	N	SER	A	532	26.570	54.403	69.734	1.00	22.02
	ATOM	4231	CA	SER	A	532	25.325	54.183	70.459	1.00	19.67
	ATOM	4232	C	SER	A	532	25.323	53.208	71.627	1.00	26.15
20	ATOM	4233	O	SER	A	532	24.767	53.475	72.680	1.00	26.64
	ATOM	4234	CB	SER	A	532	24.090	54.034	69.582	1.00	26.92
	ATOM	4235	OG	SER	A	532	24.294	53.211	68.452	1.00	23.59
	ATOM	4236	N	GLU	A	533	25.929	52.062	71.423	1.00	22.68
	ATOM	4237	CA	GLU	A	533	25.995	51.036	72.420	1.00	22.97
25	ATOM	4238	C	GLU	A	533	26.677	51.569	73.635	1.00	30.48
	ATOM	4239	O	GLU	A	533	26.125	51.539	74.749	1.00	31.13
	ATOM	4240	CB	GLU	A	533	26.683	49.779	71.850	1.00	23.96
	ATOM	4241	CG	GLU	A	533	25.827	49.146	70.733	1.00	20.82
	ATOM	4242	CD	GLU	A	533	24.611	48.450	71.276	1.00	40.65
30	ATOM	4243	OE1	GLU	A	533	24.432	48.256	72.476	1.00	36.25
	ATOM	4244	OE2	GLU	A	533	23.782	48.038	70.339	1.00	25.87
	ATOM	4245	N	ILE	A	534	27.872	52.101	73.392	1.00	26.20
	ATOM	4246	CA	ILE	A	534	28.622	52.672	74.484	1.00	26.32
	ATOM	4247	C	ILE	A	534	27.900	53.849	75.121	1.00	27.83
35	ATOM	4248	O	ILE	A	534	27.697	53.911	76.326	1.00	26.54
	ATOM	4249	CB	ILE	A	534	30.051	53.022	74.102	1.00	29.16
	ATOM	4250	CG1	ILE	A	534	30.738	51.808	73.479	1.00	29.47
	ATOM	4251	CG2	ILE	A	534	30.801	53.458	75.353	1.00	28.28
	ATOM	4252	CD1	ILE	A	534	32.038	52.184	72.765	1.00	34.99
40	ATOM	4253	N	ARG	A	535	27.480	54.805	74.320	1.00	24.30
	ATOM	4254	CA	ARG	A	535	26.804	55.898	74.949	1.00	22.51
	ATOM	4255	C	ARG	A	535	25.573	55.401	75.701	1.00	28.19
	ATOM	4256	O	ARG	A	535	25.212	55.808	76.791	1.00	32.61
	ATOM	4257	CB	ARG	A	535	26.457	56.942	73.913	1.00	24.83
45	ATOM	4258	CG	ARG	A	535	25.970	58.229	74.541	1.00	21.49
	ATOM	4259	CD	ARG	A	535	25.327	59.183	73.554	1.00	13.79
	ATOM	4260	NE	ARG	A	535	25.194	60.457	74.213	1.00	31.38
	ATOM	4261	CZ	ARG	A	535	26.256	61.140	74.554	1.00	29.41
	ATOM	4262	NH1	ARG	A	535	27.463	60.677	74.259	1.00	26.45
50	ATOM	4263	NH2	ARG	A	535	26.110	62.302	75.195	1.00	19.99
	ATOM	4264	N	PHE	A	536	24.911	54.466	75.126	1.00	23.44
	ATOM	4265	CA	PHE	A	536	23.740	53.980	75.770	1.00	22.05
	ATOM	4266	C	PHE	A	536	23.976	53.555	77.199	1.00	22.74
	ATOM	4267	O	PHE	A	536	23.349	54.113	78.105	1.00	22.06
55	ATOM	4268	CB	PHE	A	536	23.117	52.865	74.919	1.00	23.17
	ATOM	4269	CG	PHE	A	536	22.040	52.153	75.658	1.00	21.92
	ATOM	4270	CD1	PHE	A	536	20.933	52.845	76.150	1.00	22.66
	ATOM	4271	CD2	PHE	A	536	22.145	50.783	75.882	1.00	23.25
	ATOM	4272	CE1	PHE	A	536	19.926	52.181	76.847	1.00	21.23
60	ATOM	4273	CE2	PHE	A	536	21.147	50.101	76.576	1.00	24.70
	ATOM	4274	CZ	PHE	A	536	20.047	50.811	77.065	1.00	20.57
	ATOM	4275	N	ARG	A	537	24.863	52.560	77.364	1.00	18.22
	ATOM	4276	CA	ARG	A	537	25.239	51.995	78.665	1.00	19.20
	ATOM	4277	C	ARG	A	537	25.932	52.963	79.618	1.00	27.62
	ATOM	4278	O	ARG	A	537	25.803	52.845	80.837	1.00	26.73



	ATOM	4279	CB	ARG	A	537	26.035	50.709	78.556	1.00	18.91
	ATOM	4280	CG	ARG	A	537	25.318	49.656	77.708	1.00	16.55
	ATOM	4281	CD	ARG	A	537	26.181	48.426	77.387	1.00	21.58
5	ATOM	4282	NE	ARG	A	537	25.341	47.357	76.886	1.00	28.42
	ATOM	4283	CZ	ARG	A	537	25.060	47.206	75.609	1.00	18.29
	ATOM	4284	NH1	ARG	A	537	25.569	48.004	74.703	1.00	22.46
	ATOM	4285	NH2	ARG	A	537	24.240	46.236	75.224	1.00	25.22
	ATOM	4286	N	TRP	A	538	26.668	53.930	79.064	1.00	24.21
10	ATOM	4287	CA	TRP	A	538	27.337	54.918	79.867	1.00	22.11
	ATOM	4288	C	TRP	A	538	26.274	55.719	80.550	1.00	28.09
	ATOM	4289	O	TRP	A	538	26.320	55.951	81.741	1.00	27.39
	ATOM	4290	CB	TRP	A	538	28.064	55.888	78.949	1.00	20.48
	ATOM	4291	CG	TRP	A	538	28.606	57.157	79.580	1.00	21.29
15	ATOM	4292	CD1	TRP	A	538	28.641	58.345	78.968	1.00	22.86
	ATOM	4293	CD2	TRP	A	538	29.286	57.352	80.845	1.00	21.79
	ATOM	4294	NE1	TRP	A	538	29.228	59.270	79.769	1.00	22.70
	ATOM	4295	CE2	TRP	A	538	29.643	58.696	80.911	1.00	24.79
	ATOM	4296	CE3	TRP	A	538	29.574	56.535	81.946	1.00	23.35
20	ATOM	4297	CZ2	TRP	A	538	30.280	59.248	82.025	1.00	25.89
	ATOM	4298	CZ3	TRP	A	538	30.203	57.056	83.046	1.00	23.35
	ATOM	4299	CH2	TRP	A	538	30.562	58.405	83.081	1.00	24.89
	ATOM	4300	N	LEU	A	539	25.303	56.161	79.758	1.00	27.31
	ATOM	4301	CA	LEU	A	539	24.229	56.974	80.306	1.00	27.18
25	ATOM	4302	C	LEU	A	539	23.369	56.245	81.332	1.00	28.25
	ATOM	4303	O	LEU	A	539	22.857	56.822	82.266	1.00	27.19
	ATOM	4304	CB	LEU	A	539	23.428	57.812	79.262	1.00	26.37
	ATOM	4305	CG	LEU	A	539	24.269	58.682	78.279	1.00	25.71
	ATOM	4306	CD1	LEU	A	539	23.369	59.424	77.290	1.00	21.79
30	ATOM	4307	CD2	LEU	A	539	25.146	59.680	79.011	1.00	23.51
	ATOM	4308	N	ARG	A	540	23.199	54.960	81.188	1.00	27.56
	ATOM	4309	CA	ARG	A	540	22.390	54.283	82.170	1.00	26.88
	ATOM	4310	C	ARG	A	540	23.145	54.229	83.453	1.00	31.82
	ATOM	4311	O	ARG	A	540	22.618	54.448	84.539	1.00	32.72
35	ATOM	4312	CB	ARG	A	540	22.034	52.888	81.732	1.00	24.48
	ATOM	4313	CG	ARG	A	540	21.447	52.885	80.331	1.00	32.96
	ATOM	4314	CD	ARG	A	540	20.695	51.597	80.090	1.00	33.19
	ATOM	4315	NE	ARG	A	540	19.660	51.414	81.085	1.00	33.95
	ATOM	4316	CZ	ARG	A	540	19.151	50.242	81.409	1.00	30.83
40	ATOM	4317	NH1	ARG	A	540	19.564	49.132	80.849	1.00	25.37
	ATOM	4318	NH2	ARG	A	540	18.186	50.186	82.317	1.00	30.30
	ATOM	4319	N	LEU	A	541	24.414	53.948	83.318	1.00	28.93
	ATOM	4320	CA	LEU	A	541	25.239	53.895	84.505	1.00	26.36
	ATOM	4321	C	LEU	A	541	25.036	55.210	85.277	1.00	31.00
45	ATOM	4322	O	LEU	A	541	24.632	55.246	86.439	1.00	31.62
	ATOM	4323	CB	LEU	A	541	26.702	53.586	84.094	1.00	23.61
	ATOM	4324	CG	LEU	A	541	27.730	53.533	85.212	1.00	24.67
	ATOM	4325	CD1	LEU	A	541	27.387	52.411	86.190	1.00	25.02
	ATOM	4326	CD2	LEU	A	541	29.098	53.245	84.621	1.00	19.31
50	ATOM	4327	N	CYS	A	542	25.254	56.307	84.570	1.00	30.52
	ATOM	4328	CA	CYS	A	542	25.115	57.661	85.105	1.00	31.76
	ATOM	4329	C	CYS	A	542	23.808	57.996	85.805	1.00	32.71
	ATOM	4330	O	CYS	A	542	23.801	58.536	86.914	1.00	33.97
	ATOM	4331	CB	CYS	A	542	25.461	58.744	84.073	1.00	31.30
55	ATOM	4332	SG	CYS	A	542	27.085	58.488	83.347	1.00	34.39
	ATOM	4333	N	ILE	A	543	22.711	57.708	85.125	1.00	25.61
	ATOM	4334	CA	ILE	A	543	21.382	57.982	85.643	1.00	23.12
	ATOM	4335	C	ILE	A	543	21.199	57.161	86.885	1.00	30.15
	ATOM	4336	O	ILE	A	543	20.900	57.645	87.972	1.00	30.73
60	ATOM	4337	CB	ILE	A	543	20.340	57.627	84.585	1.00	23.75
	ATOM	4338	CG1	ILE	A	543	20.369	58.664	83.468	1.00	24.09
	ATOM	4339	CG2	ILE	A	543	18.955	57.572	85.182	1.00	22.99
	ATOM	4340	CD1	ILE	A	543	20.386	60.109	83.982	1.00	27.34
	ATOM	4341	N	GLN	A	544	21.440	55.884	86.695	1.00	27.99
	ATOM	4342	CA	GLN	A	544	21.320	54.929	87.756	1.00	25.72

	ATOM	4343	C	GLN	A	544	22.243	55.269	88.901	1.00	26.34
	ATOM	4344	O	GLN	A	544	22.029	54.826	90.014	1.00	26.24
	ATOM	4345	CB	GLN	A	544	21.562	53.512	87.210	1.00	26.76
5	ATOM	4346	N	SER	A	544	20.355	52.955	86.432	1.00	17.74
	ATOM	4347	CD	GLN	A	544	20.598	51.604	85.743	1.00	32.62
	ATOM	4348	OE1	GLN	A	544	20.326	51.432	84.551	1.00	38.66
	ATOM	4349	NE2	GLN	A	544	21.063	50.627	86.494	1.00	14.93
	ATOM	4350	N	SER	A	545	23.286	56.033	88.625	1.00	21.73
10	ATOM	4351	CA	SER	A	545	24.187	56.392	89.685	1.00	22.42
	ATOM	4352	C	SER	A	545	23.819	57.726	90.287	1.00	33.67
	ATOM	4353	O	SER	A	545	24.567	58.257	91.133	1.00	37.22
	ATOM	4354	CB	SER	A	545	25.646	56.322	89.338	1.00	21.57
	ATOM	4355	OG	SER	A	545	25.980	54.968	89.163	1.00	31.72
15	ATOM	4356	N	LYS	A	546	22.662	58.251	89.841	1.00	23.09
	ATOM	4357	CA	LYS	A	546	22.135	59.490	90.356	1.00	20.79
	ATOM	4358	C	LYS	A	546	22.887	60.738	89.961	1.00	27.55
	ATOM	4359	O	LYS	A	546	23.001	61.655	90.771	1.00	27.95
	ATOM	4360	CB	LYS	A	546	22.126	59.449	91.881	1.00	21.71
20	ATOM	4361	CG	LYS	A	546	21.498	58.195	92.484	1.00	15.90
	ATOM	4362	CD	LYS	A	546	20.245	57.814	91.731	1.00	39.84
	ATOM	4363	CE	LYS	A	546	19.355	56.850	92.498	1.00	45.16
	ATOM	4364	NZ	LYS	A	546	18.197	56.399	91.704	1.00	40.14
	ATOM	4365	N	TRP	A	547	23.414	60.776	88.753	1.00	23.26
25	ATOM	4366	CA	TRP	A	547	24.141	61.931	88.289	1.00	21.90
	ATOM	4367	C	TRP	A	547	23.221	62.901	87.570	1.00	29.82
	ATOM	4368	O	TRP	A	547	22.808	62.679	86.432	1.00	34.91
	ATOM	4369	CB	TRP	A	547	25.262	61.500	87.361	1.00	21.04
	ATOM	4370	CG	TRP	A	547	26.254	62.591	87.206	1.00	22.57
30	ATOM	4371	CD1	TRP	A	547	26.224	63.769	87.844	1.00	25.87
	ATOM	4372	CD2	TRP	A	547	27.437	62.588	86.417	1.00	23.40
	ATOM	4373	NE1	TRP	A	547	27.316	64.511	87.517	1.00	25.64
	ATOM	4374	CE2	TRP	A	547	28.081	63.819	86.635	1.00	27.46
	ATOM	4375	CE3	TRP	A	547	28.014	61.668	85.547	1.00	26.21
35	ATOM	4376	CZ2	TRP	A	547	29.279	64.162	85.995	1.00	27.44
	ATOM	4377	CZ3	TRP	A	547	29.195	62.009	84.923	1.00	28.70
	ATOM	4378	CH2	TRP	A	547	29.822	63.236	85.138	1.00	28.41
	ATOM	4379	N	GLU	A	548	22.888	63.995	88.227	1.00	22.95
	ATOM	4380	CA	GLU	A	548	21.979	64.970	87.649	1.00	20.70
40	ATOM	4381	C	GLU	A	548	22.419	65.473	86.305	1.00	28.32
	ATOM	4382	O	GLU	A	548	21.598	65.735	85.391	1.00	29.41
	ATOM	4383	CB	GLU	A	548	21.635	66.144	88.607	1.00	22.45
	ATOM	4384	CG	GLU	A	548	20.884	65.709	89.919	1.00	30.56
	ATOM	4385	CD	GLU	A	548	20.337	66.848	90.765	1.00	59.35
45	ATOM	4386	OE1	GLU	A	548	20.336	68.021	90.413	1.00	81.52
	ATOM	4387	OE2	GLU	A	548	19.888	66.450	91.925	1.00	57.05
	ATOM	4388	N	ASP	A	549	23.728	65.661	86.201	1.00	24.72
	ATOM	4389	CA	ASP	A	549	24.276	66.190	84.981	1.00	21.48
	ATOM	4390	C	ASP	A	549	23.914	65.359	83.795	1.00	30.08
50	ATOM	4391	O	ASP	A	549	23.760	65.869	82.697	1.00	32.05
	ATOM	4392	CB	ASP	A	549	25.775	66.480	85.048	1.00	21.28
	ATOM	4393	CG	ASP	A	549	26.076	67.463	86.130	1.00	37.74
	ATOM	4394	OD1	ASP	A	549	25.432	68.479	86.297	1.00	48.21
	ATOM	4395	OD2	ASP	A	549	27.076	67.115	86.882	1.00	46.51
55	ATOM	4396	N	ALA	A	550	23.766	64.073	84.032	1.00	27.68
	ATOM	4397	CA	ALA	A	550	23.445	63.133	82.965	1.00	26.74
	ATOM	4398	C	ALA	A	550	22.019	63.171	82.431	1.00	32.35
	ATOM	4399	O	ALA	A	550	21.745	62.615	81.361	1.00	31.95
	ATOM	4400	CB	ALA	A	550	23.812	61.713	83.372	1.00	25.48
60	ATOM	4401	N	ILE	A	551	21.123	63.795	83.192	1.00	28.71
	ATOM	4402	CA	ILE	A	551	19.716	63.882	82.832	1.00	28.20
	ATOM	4403	C	ILE	A	551	19.461	64.355	81.411	1.00	32.04
	ATOM	4404	O	ILE	A	551	18.833	63.679	80.619	1.00	31.75
	ATOM	4405	CB	ILE	A	551	18.876	64.641	83.868	1.00	30.29
	ATOM	4406	CG1	ILE	A	551	19.038	63.985	85.226	1.00	31.50

	ATOM	4407	CG2	ILE	A	551	17.391	64.661	83.475	1.00	24.75
	ATOM	4408	CD1	ILE	A	551	18.072	64.561	86.253	1.00	31.62
	ATOM	4409	N	PRO	A	552	19.969	65.529	81.099	1.00	33.75
5	ATOM	4410	CA	PRO	A	552	19.793	66.121	79.796	1.00	32.60
	ATOM	4411	C	PRO	A	552	20.240	65.224	78.669	1.00	30.34
	ATOM	4412	O	PRO	A	552	19.583	65.119	77.622	1.00	27.23
	ATOM	4413	CB	PRO	A	552	20.659	67.383	79.787	1.00	34.45
	ATOM	4414	CG	PRO	A	552	21.348	67.500	81.139	1.00	38.39
10	ATOM	4415	CD	PRO	A	552	20.934	66.296	81.950	1.00	34.48
	ATOM	4416	N	LEU	A	553	21.391	64.616	78.891	1.00	23.74
	ATOM	4417	CA	LEU	A	553	21.997	63.727	77.931	1.00	22.72
	ATOM	4418	C	LEU	A	553	21.138	62.522	77.670	1.00	32.68
	ATOM	4419	O	LEU	A	553	21.015	62.087	76.523	1.00	35.70
15	ATOM	4420	CB	LEU	A	553	23.362	63.281	78.439	1.00	21.57
	ATOM	4421	CG	LEU	A	553	24.196	64.496	78.818	1.00	24.02
	ATOM	4422	CD1	LEU	A	553	25.608	64.071	79.174	1.00	19.59
	ATOM	4423	CD2	LEU	A	553	24.188	65.479	77.630	1.00	18.60
	ATOM	4424	N	ALA	A	554	20.563	61.973	78.754	1.00	30.05
20	ATOM	4425	CA	ALA	A	554	19.726	60.779	78.669	1.00	27.72
	ATOM	4426	C	ALA	A	554	18.432	61.107	77.988	1.00	36.03
	ATOM	4427	O	ALA	A	554	17.944	60.332	77.163	1.00	37.08
	ATOM	4428	CB	ALA	A	554	19.475	60.165	80.017	1.00	26.78
	ATOM	4429	N	LEU	A	555	17.898	62.283	78.320	1.00	29.70
25	ATOM	4430	CA	LEU	A	555	16.644	62.724	77.720	1.00	28.32
	ATOM	4431	C	LEU	A	555	16.803	62.902	76.229	1.00	29.19
	ATOM	4432	O	LEU	A	555	15.970	62.506	75.385	1.00	26.13
	ATOM	4433	CB	LEU	A	555	16.110	64.027	78.342	1.00	28.26
	ATOM	4434	CG	LEU	A	555	15.371	63.814	79.666	1.00	32.76
30	ATOM	4435	CD1	LEU	A	555	15.360	65.118	80.464	1.00	34.66
	ATOM	4436	CD2	LEU	A	555	13.938	63.334	79.427	1.00	27.50
	ATOM	4437	N	LYS	A	556	17.922	63.524	75.950	1.00	28.45
	ATOM	4438	CA	LYS	A	556	18.325	63.839	74.615	1.00	28.76
	ATOM	4439	C	LYS	A	556	18.369	62.591	73.800	1.00	35.11
35	ATOM	4440	O	LYS	A	556	17.670	62.491	72.796	1.00	41.80
	ATOM	4441	CB	LYS	A	556	19.645	64.592	74.599	1.00	31.79
	ATOM	4442	CG	LYS	A	556	20.101	65.139	73.250	1.00	63.55
	ATOM	4443	CD	LYS	A	556	21.585	65.518	73.254	1.00	81.77
	ATOM	4444	CE	LYS	A	556	22.046	66.270	72.011	1.00	79.68
40	ATOM	4445	NZ	LYS	A	556	23.239	65.661	71.401	1.00	73.00
	ATOM	4446	N	MET	A	557	19.154	61.623	74.248	1.00	26.96
	ATOM	4447	CA	MET	A	557	19.305	60.364	73.514	1.00	23.97
	ATOM	4448	C	MET	A	557	18.033	59.553	73.287	1.00	30.96
	ATOM	4449	O	MET	A	557	17.811	58.907	72.263	1.00	23.24
45	ATOM	4450	CB	MET	A	557	20.401	59.488	74.104	1.00	24.89
	ATOM	4451	CG	MET	A	557	20.533	58.163	73.368	1.00	29.37
	ATOM	4452	SD	MET	A	557	22.029	57.276	73.864	1.00	33.21
	ATOM	4453	CE	MET	A	557	21.939	55.812	72.793	1.00	30.16
	ATOM	4454	N	ALA	A	558	17.203	59.568	74.287	1.00	33.42
50	ATOM	4455	CA	ALA	A	558	16.000	58.816	74.194	1.00	33.03
	ATOM	4456	C	ALA	A	558	15.042	59.345	73.163	1.00	38.12
	ATOM	4457	O	ALA	A	558	14.349	58.568	72.543	1.00	37.09
	ATOM	4458	CB	ALA	A	558	15.317	58.780	75.553	1.00	32.89
	ATOM	4459	N	THR	A	559	14.994	60.665	73.032	1.00	36.76
55	ATOM	4460	CA	THR	A	559	14.067	61.326	72.144	1.00	36.43
	ATOM	4461	C	THR	A	559	14.588	61.590	70.794	1.00	41.71
	ATOM	4462	O	THR	A	559	13.788	61.768	69.891	1.00	44.66
	ATOM	4463	CB	THR	A	559	13.615	62.705	72.694	1.00	43.70
	ATOM	4464	OG1	THR	A	559	14.728	63.545	72.957	1.00	38.88
60	ATOM	4465	CG2	THR	A	559	12.764	62.549	73.942	1.00	44.95
	ATOM	4466	N	GLU	A	560	15.897	61.695	70.674	1.00	37.38
	ATOM	4467	CA	GLU	A	560	16.495	62.018	69.395	1.00	36.51
	ATOM	4468	C	GLU	A	560	16.652	60.846	68.448	1.00	40.11
	ATOM	4469	O	GLU	A	560	17.003	61.052	67.300	1.00	43.23
	ATOM	4470	CB	GLU	A	560	17.799	62.820	69.519	1.00	38.13

	ATOM	4471	CG	GLU	A	560	17.653	64.142	70.292	1.00	54.29
	ATOM	4472	CD	GLU	A	560	18.857	65.043	70.127	1.00	78.42
	ATOM	4473	OE1	GLU	A	560	19.960	64.639	69.812	1.00	32.69
	ATOM	4474	OE2	GLU	A	560	18.593	66.303	70.380	1.00	85.90
5	ATOM	4475	N	GLN	A	561	16.425	59.627	68.955	1.00	30.45
	ATOM	4476	CA	GLN	A	561	16.467	58.356	68.230	1.00	22.57
	ATOM	4477	C	GLN	A	561	15.398	57.523	68.878	1.00	26.95
	ATOM	4478	O	GLN	A	561	14.978	57.814	69.975	1.00	27.79
10	ATOM	4479	CB	GLN	A	561	17.829	57.661	68.128	1.00	20.64
	ATOM	4480	CG	GLN	A	561	18.470	57.290	69.491	1.00	22.59
	ATOM	4481	CD	GLN	A	561	17.802	56.121	70.184	1.00	28.22
	ATOM	4482	OE1	GLN	A	561	17.524	56.156	71.400	1.00	37.44
	ATOM	4483	NE2	GLN	A	561	17.556	55.069	69.419	1.00	31.92
	ATOM	4484	N	GLY	A	562	14.888	56.535	68.209	1.00	26.16
15	ATOM	4485	CA	GLY	A	562	13.801	55.810	68.858	1.00	27.83
	ATOM	4486	C	GLY	A	562	13.932	54.320	68.761	1.00	41.56
	ATOM	4487	O	GLY	A	562	12.936	53.614	68.677	1.00	45.37
	ATOM	4488	N	ARG	A	563	15.171	53.864	68.742	1.00	37.40
20	ATOM	4489	CA	ARG	A	563	15.457	52.453	68.689	1.00	34.41
	ATOM	4490	C	ARG	A	563	15.121	51.939	70.109	1.00	39.48
	ATOM	4491	O	ARG	A	563	15.832	52.221	71.087	1.00	40.29
	ATOM	4492	CB	ARG	A	563	16.932	52.231	68.284	1.00	18.23
	ATOM	4493	CG	ARG	A	563	17.309	50.755	68.169	1.00	20.07
25	ATOM	4494	CD	ARG	A	563	18.779	50.514	68.512	1.00	25.07
	ATOM	4495	NE	ARG	A	563	19.234	49.139	68.320	1.00	25.66
	ATOM	4496	CZ	ARG	A	563	20.425	48.891	67.821	1.00	26.35
	ATOM	4497	NH1	ARG	A	563	21.257	49.860	67.430	1.00	12.96
	ATOM	4498	NH2	ARG	A	563	20.804	47.636	67.656	1.00	30.31
30	ATOM	4499	N	MET	A	564	13.989	51.228	70.239	1.00	33.12
	ATOM	4500	CA	MET	A	564	13.487	50.695	71.526	1.00	31.84
	ATOM	4501	C	MET	A	564	14.565	50.247	72.532	1.00	31.42
	ATOM	4502	O	MET	A	564	14.494	50.501	73.744	1.00	25.72
	ATOM	4503	CB	MET	A	564	12.323	49.682	71.365	1.00	32.45
35	ATOM	4504	CG	MET	A	564	11.196	50.225	70.487	1.00	35.78
	ATOM	4505	SD	MET	A	564	9.695	49.205	70.533	1.00	40.85
	ATOM	4506	CE	MET	A	564	10.177	47.892	69.382	1.00	35.87
	ATOM	4507	N	LYS	A	565	15.562	49.581	71.966	1.00	31.68
	ATOM	4508	CA	LYS	A	565	16.699	49.041	72.668	1.00	29.04
40	ATOM	4509	C	LYS	A	565	17.281	50.089	73.562	1.00	26.36
	ATOM	4510	O	LYS	A	565	17.648	49.782	74.673	1.00	21.19
	ATOM	4511	CB	LYS	A	565	17.747	48.494	71.697	1.00	29.06
	ATOM	4512	CG	LYS	A	565	18.864	47.715	72.359	1.00	23.89
	ATOM	4513	CD	LYS	A	565	19.982	47.355	71.392	1.00	35.75
45	ATOM	4514	CE	LYS	A	565	20.796	46.153	71.842	1.00	36.31
	ATOM	4515	NZ	LYS	A	565	22.233	46.311	71.577	1.00	44.91
	ATOM	4516	N	PHE	A	566	17.321	51.321	73.073	1.00	22.91
	ATOM	4517	CA	PHE	A	566	17.866	52.423	73.833	1.00	24.36
	ATOM	4518	C	PHE	A	566	16.814	53.253	74.571	1.00	30.37
50	ATOM	4519	O	PHE	A	566	16.882	53.540	75.758	1.00	30.52
	ATOM	4520	CB	PHE	A	566	18.622	53.355	72.857	1.00	25.26
	ATOM	4521	CG	PHE	A	566	19.738	52.677	72.088	1.00	24.09
	ATOM	4522	CD1	PHE	A	566	20.392	51.559	72.609	1.00	23.51
	ATOM	4523	CD2	PHE	A	566	20.165	53.187	70.858	1.00	24.48
55	ATOM	4524	CE1	PHE	A	566	21.432	50.958	71.900	1.00	23.73
	ATOM	4525	CE2	PHE	A	566	21.211	52.620	70.129	1.00	24.75
	ATOM	4526	CZ	PHE	A	566	21.828	51.491	70.668	1.00	25.20
	ATOM	4527	N	THR	A	567	15.860	53.679	73.801	1.00	31.17
	ATOM	4528	CA	THR	A	567	14.783	54.533	74.239	1.00	31.74
60	ATOM	4529	C	THR	A	567	13.985	54.037	75.458	1.00	33.79
	ATOM	4530	O	THR	A	567	13.657	54.818	76.373	1.00	26.01
	ATOM	4531	CB	THR	A	567	13.895	54.892	73.017	1.00	36.51
	ATOM	4532	OG1	THR	A	567	14.527	55.844	72.138	1.00	24.12
	ATOM	4533	CG2	THR	A	567	12.522	55.361	73.473	1.00	34.94
	ATOM	4534	N	ARG	A	568	13.663	52.726	75.469	1.00	30.74

	ATOM	4535	CA	ARG	A	568	12.864	52.166	76.545	1.00	26.30
	ATOM	4536	C	ARG	A	568	13.486	52.226	77.882	1.00	28.61
	ATOM	4537	O	ARG	A	568	12.876	52.667	78.832	1.00	30.84
5	ATOM	4538	CB	ARG	A	568	12.315	50.798	76.251	1.00	18.11
	ATOM	4539	CG	ARG	A	568	11.342	50.919	75.088	1.00	29.19
	ATOM	4540	CD	ARG	A	568	10.550	49.660	74.799	1.00	19.19
	ATOM	4541	NE	ARG	A	568	9.707	49.343	75.917	1.00	28.72
	ATOM	4542	CZ	ARG	A	568	9.254	48.138	76.133	1.00	32.39
10	ATOM	4543	NH1	ARG	A	568	9.528	47.144	75.291	1.00	29.79
	ATOM	4544	NH2	ARG	A	568	8.507	47.930	77.208	1.00	16.44
	ATOM	4545	N	PRO	A	569	14.705	51.774	77.925	1.00	28.44
	ATOM	4546	CA	PRO	A	569	15.447	51.709	79.154	1.00	28.01
	ATOM	4547	C	PRO	A	569	15.890	53.042	79.663	1.00	32.18
15	ATOM	4548	O	PRO	A	569	15.974	53.256	80.869	1.00	29.25
	ATOM	4549	CB	PRO	A	569	16.607	50.732	78.919	1.00	28.83
	ATOM	4550	CG	PRO	A	569	16.330	50.034	77.592	1.00	32.42
	ATOM	4551	CD	PRO	A	569	15.234	50.829	76.893	1.00	29.82
	ATOM	4552	N	LEU	A	570	16.143	53.949	78.741	1.00	31.95
20	ATOM	4553	CA	LEU	A	570	16.560	55.270	79.160	1.00	35.11
	ATOM	4554	C	LEU	A	570	15.407	55.962	79.897	1.00	36.24
	ATOM	4555	O	LEU	A	570	15.532	56.506	81.028	1.00	34.02
	ATOM	4556	CB	LEU	A	570	17.021	56.110	77.932	1.00	37.06
	ATOM	4557	CG	LEU	A	570	18.387	55.701	77.343	1.00	41.39
25	ATOM	4558	CD1	LEU	A	570	18.678	56.462	76.050	1.00	41.06
	ATOM	4559	CD2	LEU	A	570	19.497	55.984	78.353	1.00	37.42
	ATOM	4560	N	PHE	A	571	14.262	55.944	79.211	1.00	30.06
	ATOM	4561	CA	PHE	A	571	13.084	56.541	79.758	1.00	27.27
	ATOM	4562	C	PHE	A	571	12.813	55.899	81.095	1.00	25.94
30	ATOM	4563	O	PHE	A	571	12.399	56.536	82.030	1.00	27.16
	ATOM	4564	CB	PHE	A	571	11.888	56.375	78.828	1.00	27.60
	ATOM	4565	CG	PHE	A	571	11.546	57.616	78.042	1.00	27.70
	ATOM	4566	CD1	PHE	A	571	11.193	58.820	78.651	1.00	29.97
	ATOM	4567	CD2	PHE	A	571	11.557	57.570	76.651	1.00	28.87
35	ATOM	4568	CE1	PHE	A	571	10.861	59.953	77.910	1.00	28.24
	ATOM	4569	CE2	PHE	A	571	11.233	58.684	75.886	1.00	30.43
	ATOM	4570	CZ	PHE	A	571	10.877	59.875	76.520	1.00	29.55
	ATOM	4571	N	LYS	A	572	13.089	54.618	81.196	1.00	22.77
	ATOM	4572	CA	LYS	A	572	12.845	53.946	82.468	1.00	25.43
40	ATOM	4573	C	LYS	A	572	13.783	54.425	83.561	1.00	34.48
	ATOM	4574	O	LYS	A	572	13.351	54.920	84.602	1.00	35.11
	ATOM	4575	CB	LYS	A	572	12.736	52.428	82.392	1.00	26.89
	ATOM	4576	CG	LYS	A	572	11.303	51.911	82.326	1.00	44.03
	ATOM	4577	CD	LYS	A	572	11.219	50.426	81.922	1.00	57.87
45	ATOM	4578	CE	LYS	A	572	10.975	50.204	80.422	1.00	65.25
	ATOM	4579	NZ	LYS	A	572	11.535	48.954	79.850	1.00	61.06
	ATOM	4580	N	ASP	A	573	15.074	54.292	83.319	1.00	31.94
	ATOM	4581	CA	ASP	A	573	16.032	54.751	84.291	1.00	30.55
	ATOM	4582	C	ASP	A	573	15.684	56.166	84.712	1.00	32.26
50	ATOM	4583	O	ASP	A	573	15.693	56.453	85.895	1.00	31.85
	ATOM	4584	CB	ASP	A	573	17.453	54.788	83.718	1.00	32.87
	ATOM	4585	CG	ASP	A	573	18.051	53.443	83.487	1.00	33.43
	ATOM	4586	OD1	ASP	A	573	17.517	52.422	83.853	1.00	29.11
	ATOM	4587	OD2	ASP	A	573	19.206	53.501	82.864	1.00	35.22
55	ATOM	4588	N	LEU	A	574	15.387	57.071	83.745	1.00	29.50
	ATOM	4589	CA	LEU	A	574	15.062	58.461	84.109	1.00	27.65
	ATOM	4590	C	LEU	A	574	13.887	58.577	85.075	1.00	32.88
	ATOM	4591	O	LEU	A	574	13.864	59.411	85.962	1.00	31.04
	ATOM	4592	CB	LEU	A	574	14.844	59.385	82.909	1.00	26.24
60	ATOM	4593	CG	LEU	A	574	16.068	59.567	82.027	1.00	30.41
	ATOM	4594	CD1	LEU	A	574	15.644	59.922	80.582	1.00	28.47
	ATOM	4595	CD2	LEU	A	574	16.974	60.659	82.604	1.00	27.06
	ATOM	4596	N	ALA	A	575	12.895	57.723	84.874	1.00	32.80
	ATOM	4597	CA	ALA	A	575	11.709	57.713	85.711	1.00	31.11
	ATOM	4598	C	ALA	A	575	12.002	57.140	87.083	1.00	35.77

5	ATOM	4599	O	ALA	A	575	11.309	57.362	88.055	1.00	39.91
	ATOM	4600	CB	ALA	A	575	10.631	56.890	85.024	1.00	30.56
	ATOM	4601	N	ALA	A	576	13.049	56.364	87.170	1.00	28.55
	ATOM	4602	CA	ALA	A	576	13.390	55.778	88.448	1.00	22.80
	ATOM	4603	C	ALA	A	576	14.258	56.724	89.266	1.00	26.93
10	ATOM	4604	O	ALA	A	576	14.444	56.591	90.461	1.00	30.45
	ATOM	4605	CB	ALA	A	576	14.023	54.415	88.245	1.00	20.31
	ATOM	4606	N	PHE	A	577	14.787	57.686	88.584	1.00	22.86
	ATOM	4607	CA	PHE	A	577	15.604	58.673	89.194	1.00	22.71
	ATOM	4608	C	PHE	A	577	14.651	59.751	89.673	1.00	32.25
15	ATOM	4609	O	PHE	A	577	13.930	60.334	88.863	1.00	34.17
	ATOM	4610	CB	PHE	A	577	16.640	59.188	88.154	1.00	22.89
	ATOM	4611	CG	PHE	A	577	17.704	60.076	88.741	1.00	23.16
	ATOM	4612	CD1	PHE	A	577	17.847	60.231	90.120	1.00	26.60
	ATOM	4613	CD2	PHE	A	577	18.561	60.806	87.914	1.00	23.46
20	ATOM	4614	CE1	PHE	A	577	18.818	61.082	90.661	1.00	27.55
	ATOM	4615	CE2	PHE	A	577	19.543	61.657	88.431	1.00	23.88
	ATOM	4616	CZ	PHE	A	577	19.669	61.791	89.813	1.00	23.59
	ATOM	4617	N	ASP	A	578	14.625	60.008	90.990	1.00	29.70
	ATOM	4618	CA	ASP	A	578	13.717	61.018	91.533	1.00	28.65
25	ATOM	4619	C	ASP	A	578	13.862	62.357	90.881	1.00	28.55
	ATOM	4620	O	ASP	A	578	12.877	63.004	90.599	1.00	32.65
	ATOM	4621	CB	ASP	A	578	13.804	61.192	93.055	1.00	32.60
	ATOM	4622	CG	ASP	A	578	15.153	61.647	93.550	1.00	53.21
	ATOM	4623	OD1	ASP	A	578	16.175	61.594	92.872	1.00	51.81
30	ATOM	4624	OD2	ASP	A	578	15.104	62.072	94.796	1.00	64.93
	ATOM	4625	N	LYS	A	579	15.104	62.750	90.674	1.00	20.12
	ATOM	4626	CA	LYS	A	579	15.470	64.012	90.084	1.00	21.01
	ATOM	4627	C	LYS	A	579	14.934	64.270	88.697	1.00	30.25
	ATOM	4628	O	LYS	A	579	14.620	65.413	88.368	1.00	35.12
35	ATOM	4629	CB	LYS	A	579	16.982	64.223	90.104	1.00	24.11
	ATOM	4630	CG	LYS	A	579	17.552	64.202	91.512	1.00	48.98
	ATOM	4631	CD	LYS	A	579	17.252	65.488	92.286	1.00	76.92
	ATOM	4632	CE	LYS	A	579	16.495	65.258	93.588	1.00	87.93
	ATOM	4633	NZ	LYS	A	579	17.282	64.550	94.611	1.00	89.56
40	ATOM	4634	N	SER	A	580	14.838	63.244	87.857	1.00	28.66
	ATOM	4635	CA	SER	A	580	14.368	63.437	86.459	1.00	28.56
	ATOM	4636	C	SER	A	580	13.007	62.829	86.129	1.00	32.95
	ATOM	4637	O	SER	A	580	12.561	62.870	84.992	1.00	35.30
	ATOM	4638	CB	SER	A	580	15.337	62.774	85.517	1.00	25.69
45	ATOM	4639	OG	SER	A	580	15.476	61.424	85.969	1.00	25.12
	ATOM	4640	N	HIS	A	581	12.364	62.230	87.098	1.00	26.81
	ATOM	4641	CA	HIS	A	581	11.100	61.595	86.850	1.00	28.26
	ATOM	4642	C	HIS	A	581	10.067	62.399	86.042	1.00	36.50
	ATOM	4643	O	HIS	A	581	9.644	62.031	84.927	1.00	34.71
50	ATOM	4644	CB	HIS	A	581	10.553	61.047	88.152	1.00	29.76
	ATOM	4645	CG	HIS	A	581	9.148	60.588	87.968	1.00	35.31
	ATOM	4646	ND1	HIS	A	581	8.111	61.494	87.899	1.00	38.92
	ATOM	4647	CD2	HIS	A	581	8.634	59.338	87.891	1.00	36.84
	ATOM	4648	CE1	HIS	A	581	6.999	60.783	87.817	1.00	38.85
55	ATOM	4649	NE2	HIS	A	581	7.280	59.488	87.734	1.00	38.13
	ATOM	4650	N	ASP	A	582	9.656	63.502	86.639	1.00	35.79
	ATOM	4651	CA	ASP	A	582	8.680	64.388	86.064	1.00	34.39
	ATOM	4652	C	ASP	A	582	9.035	64.807	84.659	1.00	37.82
	ATOM	4653	O	ASP	A	582	8.220	64.704	83.735	1.00	37.01
60	ATOM	4654	CB	ASP	A	582	8.428	65.552	87.001	1.00	36.57
	ATOM	4655	CG	ASP	A	582	7.597	65.110	88.167	1.00	58.09
	ATOM	4656	OD1	ASP	A	582	6.708	64.289	88.070	1.00	63.17
	ATOM	4657	OD2	ASP	A	582	7.920	65.708	89.279	1.00	73.96
	ATOM	4658	N	GLN	A	583	10.272	65.255	84.488	1.00	32.88
	ATOM	4659	CA	GLN	A	583	10.750	65.648	83.169	1.00	29.92
	ATOM	4660	C	GLN	A	583	10.690	64.464	82.168	1.00	37.12
	ATOM	4661	O	GLN	A	583	10.362	64.624	80.990	1.00	37.42
	ATOM	4662	CB	GLN	A	583	12.172	66.182	83.287	1.00	28.54

	ATOM	4663	CG	GLN	A	583	12.704	66.648	81.929	1.00	48.12
	ATOM	4664	CD	GLN	A	583	13.957	67.475	82.081	1.00	64.09
	ATOM	4665	OE1	GLN	A	583	14.736	67.248	83.015	1.00	59.43
	ATOM	4666	NE2	GLN	A	583	14.130	68.461	81.201	1.00	55.34
5	ATOM	4667	N	ALA	A	584	11.009	63.250	82.638	1.00	33.22
	ATOM	4668	CA	ALA	A	584	10.964	62.062	81.780	1.00	32.22
	ATOM	4669	C	ALA	A	584	9.557	61.841	81.315	1.00	37.45
	ATOM	4670	O	ALA	A	584	9.319	61.526	80.152	1.00	40.05
	ATOM	4671	CB	ALA	A	584	11.389	60.793	82.504	1.00	31.62
10	ATOM	4672	N	VAL	A	585	8.622	61.995	82.261	1.00	30.42
	ATOM	4673	CA	VAL	A	585	7.217	61.806	81.946	1.00	29.16
	ATOM	4674	C	VAL	A	585	6.647	62.909	81.024	1.00	36.53
	ATOM	4675	O	VAL	A	585	5.933	62.690	80.052	1.00	36.22
	ATOM	4676	CB	VAL	A	585	6.408	61.567	83.209	1.00	29.78
15	ATOM	4677	CG1	VAL	A	585	4.959	61.947	82.955	1.00	30.03
	ATOM	4678	CG2	VAL	A	585	6.464	60.085	83.539	1.00	27.82
	ATOM	4679	N	ARG	A	586	7.000	64.123	81.333	1.00	35.76
	ATOM	4680	CA	ARG	A	586	6.574	65.242	80.562	1.00	36.20
	ATOM	4681	C	ARG	A	586	7.146	65.125	79.180	1.00	44.65
20	ATOM	4682	O	ARG	A	586	6.459	65.355	78.197	1.00	48.32
	ATOM	4683	CB	ARG	A	586	7.116	66.498	81.208	1.00	38.13
	ATOM	4684	CG	ARG	A	586	6.744	67.799	80.518	1.00	61.01
	ATOM	4685	CD	ARG	A	586	7.077	69.029	81.354	1.00	73.03
	ATOM	4686	NE	ARG	A	586	8.491	69.128	81.711	1.00	86.05
25	ATOM	4687	CZ	ARG	A	586	8.961	69.001	82.957	1.00	98.46
	ATOM	4688	NH1	ARG	A	586	8.167	68.741	84.004	1.00	79.75
	ATOM	4689	NH2	ARG	A	586	10.268	69.103	83.159	1.00	77.55
	ATOM	4690	N	THR	A	587	8.426	64.769	79.110	1.00	39.49
	ATOM	4691	CA	THR	A	587	9.099	64.646	77.822	1.00	36.80
30	ATOM	4692	C	THR	A	587	8.387	63.690	76.869	1.00	37.11
	ATOM	4693	O	THR	A	587	8.229	63.931	75.678	1.00	36.91
	ATOM	4694	CB	THR	A	587	10.634	64.384	77.917	1.00	39.40
	ATOM	4695	OG1	THR	A	587	11.303	65.334	78.717	1.00	46.27
	ATOM	4696	CG2	THR	A	587	11.233	64.460	76.529	1.00	32.60
35	ATOM	4697	N	TYR	A	588	7.934	62.587	77.393	1.00	33.33
	ATOM	4698	CA	TYR	A	588	7.252	61.639	76.555	1.00	33.94
	ATOM	4699	C	TYR	A	588	5.890	62.146	76.090	1.00	37.02
	ATOM	4700	O	TYR	A	588	5.428	61.880	74.988	1.00	41.55
	ATOM	4701	CB	TYR	A	588	7.042	60.383	77.396	1.00	33.96
40	ATOM	4702	CG	TYR	A	588	6.017	59.440	76.851	1.00	33.08
	ATOM	4703	CD1	TYR	A	588	6.331	58.640	75.754	1.00	35.64
	ATOM	4704	CD2	TYR	A	588	4.758	59.288	77.437	1.00	34.09
	ATOM	4705	CE1	TYR	A	588	5.424	57.703	75.251	1.00	34.36
	ATOM	4706	CE2	TYR	A	588	3.822	58.378	76.932	1.00	34.05
45	ATOM	4707	CZ	TYR	A	588	4.162	57.581	75.834	1.00	33.89
	ATOM	4708	OH	TYR	A	588	3.275	56.674	75.322	1.00	23.43
	ATOM	4709	N	GLN	A	589	5.216	62.853	76.959	1.00	25.04
	ATOM	4710	CA	GLN	A	589	3.914	63.339	76.612	1.00	21.41
	ATOM	4711	C	GLN	A	589	3.992	64.304	75.481	1.00	28.78
50	ATOM	4712	O	GLN	A	589	3.099	64.410	74.678	1.00	31.24
	ATOM	4713	CB	GLN	A	589	3.241	63.935	77.832	1.00	21.73
	ATOM	4714	CG	GLN	A	589	2.878	62.820	78.827	1.00	22.30
	ATOM	4715	CD	GLN	A	589	1.695	62.069	78.293	1.00	52.83
	ATOM	4716	OE1	GLN	A	589	1.511	62.003	77.075	1.00	60.15
55	ATOM	4717	NE2	GLN	A	589	0.864	61.542	79.182	1.00	53.04
	ATOM	4718	N	GLU	A	590	5.099	65.001	75.409	1.00	28.36
	ATOM	4719	CA	GLU	A	590	5.276	65.966	74.355	1.00	26.87
	ATOM	4720	C	GLU	A	590	5.840	65.338	73.140	1.00	35.10
	ATOM	4721	O	GLU	A	590	6.096	66.059	72.171	1.00	40.28
60	ATOM	4722	CB	GLU	A	590	6.323	67.011	74.747	1.00	27.61
	ATOM	4723	CG	GLU	A	590	5.846	67.954	75.847	1.00	44.11
	ATOM	4724	CD	GLU	A	590	6.981	68.759	76.388	1.00	75.35
	ATOM	4725	OE1	GLU	A	590	8.120	68.689	75.925	1.00	54.78
	ATOM	4726	OE2	GLU	A	590	6.609	69.516	77.403	1.00	59.46

	ATOM	4727	N	HIS	A	591	6.091	64.031	73.207	1.00	27.57
	ATOM	4728	CA	HIS	A	591	6.713	63.384	72.086	1.00	25.58
	ATOM	4729	C	HIS	A	591	5.928	62.249	71.578	1.00	32.34
5	ATOM	4730	O	HIS	A	591	6.184	61.751	70.496	1.00	38.53
	ATOM	4731	CB	HIS	A	591	8.094	62.851	72.487	1.00	26.32
	ATOM	4732	CG	HIS	A	591	9.219	63.809	72.268	1.00	31.06
	ATOM	4733	ND1	HIS	A	591	9.630	64.680	73.255	1.00	32.65
	ATOM	4734	CD2	HIS	A	591	9.998	64.032	71.169	1.00	34.91
10	ATOM	4735	CE1	HIS	A	591	10.635	65.404	72.756	1.00	32.01
	ATOM	4736	NE2	HIS	A	591	10.884	65.037	71.508	1.00	33.36
	ATOM	4737	N	LYS	A	592	4.978	61.812	72.337	1.00	28.34
	ATOM	4738	CA	LYS	A	592	4.254	60.643	71.849	1.00	29.96
	ATOM	4739	C	LYS	A	592	3.654	60.692	70.432	1.00	33.41
15	ATOM	4740	O	LYS	A	592	3.819	59.769	69.592	1.00	29.05
	ATOM	4741	CB	LYS	A	592	3.362	59.983	72.888	1.00	32.83
	ATOM	4742	CG	LYS	A	592	2.435	60.930	73.615	1.00	31.14
	ATOM	4743	CD	LYS	A	592	1.677	60.203	74.704	1.00	38.97
	ATOM	4744	CE	LYS	A	592	0.253	60.691	74.890	1.00	25.02
20	ATOM	4745	NZ	LYS	A	592	-0.157	60.632	76.302	1.00	45.83
	ATOM	4746	N	ALA	A	593	2.934	61.782	70.187	1.00	30.97
	ATOM	4747	CA	ALA	A	593	2.260	62.026	68.917	1.00	28.47
	ATOM	4748	C	ALA	A	593	3.169	61.943	67.703	1.00	32.66
	ATOM	4749	O	ALA	A	593	2.775	61.488	66.639	1.00	36.77
25	ATOM	4750	CB	ALA	A	593	1.571	63.379	68.954	1.00	27.35
	ATOM	4751	N	SER	A	594	4.384	62.405	67.869	1.00	27.08
	ATOM	4752	CA	SER	A	594	5.345	62.417	66.794	1.00	30.04
	ATOM	4753	C	SER	A	594	6.185	61.169	66.760	1.00	36.80
	ATOM	4754	O	SER	A	594	6.995	60.991	65.848	1.00	37.94
30	ATOM	4755	CB	SER	A	594	6.292	63.596	66.977	1.00	37.69
	ATOM	4756	OG	SER	A	594	7.199	63.340	68.043	1.00	54.55
	ATOM	4757	N	MET	A	595	6.015	60.340	67.776	1.00	33.12
	ATOM	4758	CA	MET	A	595	6.794	59.115	67.898	1.00	33.96
	ATOM	4759	C	MET	A	595	6.200	57.936	67.125	1.00	40.91
35	ATOM	4760	O	MET	A	595	5.019	57.927	66.809	1.00	50.82
	ATOM	4761	CB	MET	A	595	6.716	58.686	69.382	1.00	34.22
	ATOM	4762	CG	MET	A	595	7.621	59.371	70.399	1.00	34.61
	ATOM	4763	SD	MET	A	595	7.606	58.440	71.962	1.00	39.24
	ATOM	4764	CE	MET	A	595	7.145	59.779	73.084	1.00	36.72
40	ATOM	4765	N	HIS	A	596	6.987	56.897	66.886	1.00	26.19
	ATOM	4766	CA	HIS	A	596	6.496	55.657	66.246	1.00	23.19
	ATOM	4767	C	HIS	A	596	5.438	54.964	67.120	1.00	25.21
	ATOM	4768	O	HIS	A	596	5.621	54.728	68.311	1.00	22.59
	ATOM	4769	CB	HIS	A	596	7.657	54.655	66.077	1.00	24.41
45	ATOM	4770	CG	HIS	A	596	7.222	53.366	65.493	1.00	30.13
	ATOM	4771	ND1	HIS	A	596	7.606	52.995	64.214	1.00	32.86
	ATOM	4772	CD2	HIS	A	596	6.421	52.385	66.005	1.00	30.90
	ATOM	4773	CE1	HIS	A	596	7.047	51.824	63.974	1.00	30.05
	ATOM	4774	NE2	HIS	A	596	6.325	51.441	65.031	1.00	30.20
50	ATOM	4775	N	PRO	A	597	4.334	54.587	66.512	1.00	27.08
	ATOM	4776	CA	PRO	A	597	3.217	53.912	67.173	1.00	26.35
	ATOM	4777	C	PRO	A	597	3.513	52.851	68.248	1.00	37.51
	ATOM	4778	O	PRO	A	597	2.979	52.900	69.348	1.00	41.16
	ATOM	4779	CB	PRO	A	597	2.334	53.307	66.076	1.00	26.17
55	ATOM	4780	CG	PRO	A	597	3.140	53.426	64.792	1.00	34.56
	ATOM	4781	CD	PRO	A	597	4.285	54.418	65.050	1.00	30.06
	ATOM	4782	N	VAL	A	598	4.311	51.850	67.939	1.00	33.08
	ATOM	4783	CA	VAL	A	598	4.585	50.802	68.911	1.00	28.39
	ATOM	4784	C	VAL	A	598	5.444	51.307	70.029	1.00	29.32
	ATOM	4785	O	VAL	A	598	5.168	51.096	71.217	1.00	29.13
60	ATOM	4786	CB	VAL	A	598	5.196	49.599	68.210	1.00	27.99
	ATOM	4787	CG1	VAL	A	598	5.806	48.608	69.187	1.00	26.98
	ATOM	4788	CG2	VAL	A	598	4.144	48.944	67.296	1.00	26.13
	ATOM	4789	N	THR	A	599	6.480	52.021	69.635	1.00	26.10
	ATOM	4790	CA	THR	A	599	7.370	52.573	70.631	1.00	26.95



	ATOM	4791	C	THR	A	599	6.650	53.404	71.669	1.00	30.81
	ATOM	4792	O	THR	A	599	6.863	53.327	72.871	1.00	31.33
	ATOM	4793	CB	THR	A	599	8.413	53.455	69.975	1.00	26.67
5	ATOM	4794	OG1	THR	A	599	9.092	52.725	68.958	1.00	27.92
	ATOM	4795	CG2	THR	A	599	9.358	53.884	71.092	1.00	20.69
	ATOM	4796	N	ALA	A	600	5.801	54.218	71.135	1.00	26.41
	ATOM	4797	CA	ALA	A	600	4.997	55.111	71.878	1.00	26.39
	ATOM	4798	C	ALA	A	600	4.176	54.339	72.860	1.00	32.00
	ATOM	4799	O	ALA	A	600	4.162	54.597	74.057	1.00	35.37
10	ATOM	4800	CB	ALA	A	600	4.090	55.774	70.856	1.00	27.56
	ATOM	4801	N	MET	A	601	3.470	53.380	72.332	1.00	26.26
	ATOM	4802	CA	MET	A	601	2.627	52.585	73.167	1.00	26.60
	ATOM	4803	C	MET	A	601	3.439	51.909	74.225	1.00	25.73
	ATOM	4804	O	MET	A	601	3.099	51.964	75.381	1.00	25.77
15	ATOM	4805	CB	MET	A	601	1.752	51.625	72.353	1.00	30.49
	ATOM	4806	CG	MET	A	601	1.024	50.594	73.176	1.00	36.00
	ATOM	4807	SD	MET	A	601	2.043	49.146	73.554	1.00	42.41
	ATOM	4808	CE	MET	A	601	1.693	48.128	72.111	1.00	37.75
	ATOM	4809	N	LEU	A	602	4.538	51.310	73.848	1.00	21.64
20	ATOM	4810	CA	LEU	A	602	5.339	50.671	74.873	1.00	22.59
	ATOM	4811	C	LEU	A	602	6.010	51.650	75.870	1.00	29.61
	ATOM	4812	O	LEU	A	602	6.137	51.346	77.039	1.00	27.62
	ATOM	4813	CB	LEU	A	602	6.418	49.760	74.294	1.00	22.14
	ATOM	4814	CG	LEU	A	602	5.916	48.529	73.575	1.00	25.78
25	ATOM	4815	CD1	LEU	A	602	7.021	48.087	72.609	1.00	26.02
	ATOM	4816	CD2	LEU	A	602	5.651	47.445	74.613	1.00	21.01
	ATOM	4817	N	VAL	A	603	6.508	52.805	75.445	1.00	27.15
	ATOM	4818	CA	VAL	A	603	7.145	53.684	76.413	1.00	26.39
	ATOM	4819	C	VAL	A	603	6.121	54.157	77.438	1.00	32.60
30	ATOM	4820	O	VAL	A	603	6.436	54.235	78.621	1.00	35.31
	ATOM	4821	CB	VAL	A	603	7.917	54.832	75.760	1.00	27.78
	ATOM	4822	CG1	VAL	A	603	8.286	55.887	76.774	1.00	24.54
	ATOM	4823	CG2	VAL	A	603	9.172	54.286	75.094	1.00	27.29
	ATOM	4824	N	GLY	A	604	4.878	54.434	76.976	1.00	27.44
35	ATOM	4825	CA	GLY	A	604	3.759	54.856	77.819	1.00	27.58
	ATOM	4826	C	GLY	A	604	3.418	53.797	78.905	1.00	37.00
	ATOM	4827	O	GLY	A	604	3.088	54.102	80.072	1.00	36.56
	ATOM	4828	N	LYS	A	605	3.511	52.522	78.520	1.00	32.54
	ATOM	4829	CA	LYS	A	605	3.250	51.415	79.459	1.00	32.17
40	ATOM	4830	C	LYS	A	605	4.312	51.405	80.539	1.00	35.15
	ATOM	4831	O	LYS	A	605	4.040	51.347	81.734	1.00	33.77
	ATOM	4832	CB	LYS	A	605	3.231	50.034	78.782	1.00	33.59
	ATOM	4833	CG	LYS	A	605	1.837	49.438	78.576	1.00	42.45
	ATOM	4834	CD	LYS	A	605	1.846	48.115	77.815	1.00	60.83
45	ATOM	4835	CE	LYS	A	605	1.223	46.946	78.578	1.00	86.38
	ATOM	4836	NZ	LYS	A	605	2.188	46.179	79.385	1.00	93.05
	ATOM	4837	N	ASP	A	606	5.544	51.470	80.056	1.00	32.91
	ATOM	4838	CA	ASP	A	606	6.715	51.510	80.878	1.00	31.82
	ATOM	4839	C	ASP	A	606	6.549	52.667	81.833	1.00	36.24
50	ATOM	4840	O	ASP	A	606	6.652	52.503	83.045	1.00	35.19
	ATOM	4841	CB	ASP	A	606	7.983	51.702	80.027	1.00	32.52
	ATOM	4842	CG	ASP	A	606	8.302	50.525	79.134	1.00	40.01
	ATOM	4843	OD1	ASP	A	606	7.934	49.378	79.344	1.00	40.49
	ATOM	4844	OD2	ASP	A	606	9.038	50.869	78.111	1.00	41.73
55	ATOM	4845	N	LEU	A	607	6.240	53.833	81.266	1.00	34.45
	ATOM	4846	CA	LEU	A	607	6.152	54.972	82.185	1.00	36.03
	ATOM	4847	C	LEU	A	607	4.814	55.018	82.968	1.00	42.35
	ATOM	4848	O	LEU	A	607	4.600	55.872	83.824	1.00	41.57
	ATOM	4849	CB	LEU	A	607	6.321	56.250	81.364	1.00	36.90
60	ATOM	4850	CG	LEU	A	607	7.779	56.490	80.974	1.00	38.75
	ATOM	4851	CD1	LEU	A	607	7.954	57.746	80.132	1.00	34.34
	ATOM	4852	CD2	LEU	A	607	8.695	56.653	82.183	1.00	41.97
	ATOM	4853	N	LYS	A	608	3.895	54.062	82.586	1.00	45.01
	ATOM	4854	CA	LYS	A	608	2.576	53.874	83.264	1.00	46.99

	ATOM	4855	C	LYS	A	608	1.625	55.088	83.181	1.00	51.31
	ATOM	4856	O	LYS	A	608	0.988	55.467	84.151	1.00	51.35
	ATOM	4857	CB	LYS	A	608	2.813	53.510	84.750	1.00	50.83
5	ATOM	4858	CG	LYS	A	608	3.331	52.093	84.949	1.00	63.57
	ATOM	4859	CD	LYS	A	608	4.405	52.019	86.031	1.00	77.03
	ATOM	4860	CE	LYS	A	608	5.341	50.825	85.858	1.00	96.40
	ATOM	4861	NZ	LYS	A	608	6.034	50.554	87.117	1.00	100.00
	ATOM	4862	N	VAL	A	609	1.560	55.724	81.991	1.00	50.28
	ATOM	4863	CA	VAL	A	609	0.688	56.901	81.852	1.00	50.89
10	ATOM	4864	C	VAL	A	609	-0.494	56.660	80.897	1.00	60.23
	ATOM	4865	O	VAL	A	609	-1.640	56.952	81.194	1.00	63.02
	ATOM	4866	CB	VAL	A	609	1.533	58.091	81.364	1.00	54.72
	ATOM	4867	CG1	VAL	A	609	1.996	58.926	82.551	1.00	54.87
	ATOM	4868	CG2	VAL	A	609	2.744	57.607	80.605	1.00	54.46
15	ATOM	4869	N	ASP	A	610	-0.177	56.152	79.687	1.00	58.84
	ATOM	4870	CA	ASP	A	610	-1.238	55.949	78.699	1.00	99.84
	ATOM	4871	C	ASP	A	610	-2.062	54.695	79.001	1.00	100.00
	ATOM	4872	O	ASP	A	610	-3.247	54.615	78.711	1.00	69.75
20	ATOM	4873	CB	ASP	A	610	-0.594	55.818	77.316	1.00	100.00
	ATOM	4874	CG	ASP	A	610	-0.637	57.161	76.610	1.00	92.61
	ATOM	4875	OD1	ASP	A	610	-1.449	57.999	77.018	1.00	90.49
	ATOM	4876	OD2	ASP	A	610	0.134	57.355	75.670	1.00	89.29
	ATOM	4877	ZN2+	ZN	Z	1	17.003	38.803	64.180	1.00	28.37
	ATOM	4878	YB3+	YB	Y	1	43.011	51.068	98.864	1.00	34.70
25	ATOM	4879	YB3+	YB	Y	2	-13.786	56.771	52.040	0.50	57.25
	ATOM	4880	YB3+	YB	Y	3	-10.537	57.860	52.381	0.50	36.57
	ATOM	4881	CG	IMD	I	1	26.249	42.039	80.754	1.00	28.44
	ATOM	4882	ND1	IMD	I	1	26.057	42.254	79.400	1.00	28.35
	ATOM	4883	CD2	IMD	I	1	27.562	41.726	80.902	1.00	17.99
30	ATOM	4884	CE1	IMD	I	1	27.201	42.063	78.760	1.00	29.77
	ATOM	4885	NE2	IMD	I	1	28.130	41.745	79.647	1.00	35.02
	ATOM	4886	CB	ACE	C	1	13.616	12.333	68.475	1.00	59.33
	ATOM	4887	CG	ACE	C	1	12.871	13.331	69.306	1.00	42.98
	ATOM	4888	OD1	ACE	C	1	12.958	14.536	69.146	1.00	39.66
35	ATOM	4889	OD2	ACE	C	1	12.142	12.759	70.236	1.00	47.21
	ATOM	4890	C6	INH	V	1	7.422	38.514	70.154	1.00	38.70
	ATOM	4891	C5	INH	V	1	7.571	39.820	69.689	1.00	37.05
	ATOM	4892	C4	INH	V	1	7.901	40.062	68.354	1.00	31.41
40	ATOM	4893	C3	INH	V	1	8.091	38.967	67.505	1.00	35.48
	ATOM	4894	C2	INH	V	1	7.944	37.650	67.949	1.00	31.90
	ATOM	4895	C1	INH	V	1	7.611	37.434	69.286	1.00	36.93
	ATOM	4896	C7	INH	V	1	8.071	41.463	67.833	1.00	32.28
	ATOM	4897	O1	INH	V	1	8.288	41.443	66.485	1.00	37.06
	ATOM	4898	C8	INH	V	1	9.584	41.740	66.129	1.00	32.34
45	ATOM	4899	C9	INH	V	1	9.825	42.911	65.416	1.00	31.03
	ATOM	4900	C10	INH	V	1	11.127	43.216	65.023	1.00	33.64
	ATOM	4901	C11	INH	V	1	12.194	42.381	65.339	1.00	31.88
	ATOM	4902	C12	INH	V	1	11.928	41.198	66.028	1.00	31.07
	ATOM	4903	C13	INH	V	1	10.630	40.858	66.412	1.00	28.70
50	ATOM	4904	C14	INH	V	1	13.587	42.710	64.882	1.00	32.51
	ATOM	4905	C15	INH	V	1	14.260	41.560	64.121	1.00	34.69
	ATOM	4906	C16	INH	V	1	15.683	41.849	63.754	1.00	28.88
	ATOM	4907	S1	INH	V	1	16.605	40.755	64.790	1.00	29.16
	ATOM	4908	N1	INH	V	1	13.497	40.805	63.099	1.00	30.69
55	ATOM	4909	O	HOH	W	1	44.463	49.888	77.523	1.00	46.91
	ATOM	4910	O	HOH	W	2	13.469	27.803	78.018	1.00	20.07
	ATOM	4911	O	HOH	W	3	4.225	69.721	58.393	1.00	27.76
	ATOM	4912	O	HOH	W	4	15.603	28.826	61.823	1.00	22.81
	ATOM	4913	O	HOH	W	5	22.862	26.624	42.874	1.00	53.05
60	ATOM	4914	O	HOH	W	6	8.423	46.452	57.584	1.00	32.22
	ATOM	4915	O	HOH	W	7	17.904	46.550	68.524	1.00	31.91
	ATOM	4916	O	HOH	W	8	22.979	45.895	83.716	1.00	39.37
	ATOM	4917	O	HOH	W	9	17.707	39.158	55.643	1.00	25.27
	ATOM	4918	O	HOH	W	10	12.439	36.303	59.209	1.00	31.46

	ATOM	4919	O	HOH	W	11	17.367	62.730	50.320	1.00	37.74
	ATOM	4920	O	HOH	W	12	42.823	52.642	90.552	1.00	53.80
	ATOM	4921	O	HOH	W	13	34.337	45.508	97.419	1.00	57.99
5	ATOM	4922	O	HOH	W	14	6.726	27.119	48.459	1.00	62.29
	ATOM	4923	O	HOH	W	15	-0.093	30.159	71.746	1.00	29.96
	ATOM	4924	O	HOH	W	16	-19.673	44.016	58.682	1.00	58.64
	ATOM	4925	O	HOH	W	17	16.563	26.790	80.837	1.00	38.62
	ATOM	4926	O	HOH	W	18	10.281	35.677	88.518	1.00	26.01
10	ATOM	4927	O	HOH	W	19	20.973	35.691	44.774	1.00	49.50
	ATOM	4928	O	HOH	W	20	0.996	19.571	53.713	1.00	67.39
	ATOM	4929	O	HOH	W	21	20.424	37.014	85.845	1.00	39.54
	ATOM	4930	O	HOH	W	22	-2.498	35.905	53.781	1.00	51.70
	ATOM	4931	O	HOH	W	23	39.807	49.718	92.595	1.00	37.39
15	ATOM	4932	O	HOH	W	24	16.431	58.267	93.127	1.00	47.45
	ATOM	4933	O	HOH	W	25	6.935	45.104	66.012	1.00	18.12
	ATOM	4934	O	HOH	W	26	40.479	54.713	100.253	1.00	28.72
	ATOM	4935	O	HOH	W	27	22.369	40.324	67.919	1.00	46.36
	ATOM	4936	O	HOH	W	28	37.289	49.457	68.016	1.00	61.37
20	ATOM	4937	O	HOH	W	29	2.611	35.015	55.709	1.00	24.45
	ATOM	4938	O	HOH	W	30	41.088	62.590	98.644	1.00	65.38
	ATOM	4939	O	HOH	W	31	17.369	55.024	87.465	1.00	24.22
	ATOM	4940	O	HOH	W	32	25.433	20.198	55.692	1.00	44.61
	ATOM	4941	O	HOH	W	33	3.890	42.770	66.651	1.00	22.34
25	ATOM	4942	O	HOH	W	34	3.934	63.391	62.592	1.00	60.69
	ATOM	4943	O	HOH	W	35	22.280	41.610	86.289	1.00	74.20
	ATOM	4944	O	HOH	W	36	22.631	46.401	90.078	1.00	47.44
	ATOM	4945	O	HOH	W	37	33.442	20.227	64.569	1.00	55.41
	ATOM	4946	O	HOH	W	38	39.834	28.974	75.602	1.00	41.72
30	ATOM	4947	O	HOH	W	39	35.232	47.140	54.186	1.00	37.08
	ATOM	4948	O	HOH	W	40	36.003	57.784	57.893	1.00	43.05
	ATOM	4949	O	HOH	W	41	37.216	27.438	74.564	1.00	50.79
	ATOM	4950	O	HOH	W	42	17.770	67.012	77.183	1.00	45.78
	ATOM	4951	O	HOH	W	43	5.341	31.286	78.127	1.00	25.34
35	ATOM	4952	O	HOH	W	44	33.535	32.503	52.063	1.00	56.13
	ATOM	4953	O	HOH	W	45	25.477	33.146	44.610	1.00	65.43
	ATOM	4954	O	HOH	W	46	16.235	37.438	52.628	1.00	32.10
	ATOM	4955	O	HOH	W	47	28.791	14.101	63.316	1.00	46.67
	ATOM	4956	O	HOH	W	48	10.230	24.992	86.967	1.00	38.63
40	ATOM	4957	O	HOH	W	49	30.821	38.856	79.630	1.00	40.44
	ATOM	4958	O	HOH	W	50	12.621	37.226	62.944	1.00	26.70
	ATOM	4959	O	HOH	W	51	27.987	30.609	66.612	1.00	33.55
	ATOM	4960	O	HOH	W	52	34.459	28.696	64.242	1.00	51.01
	ATOM	4961	O	HOH	W	53	34.969	62.270	91.179	1.00	68.20
45	ATOM	4962	O	HOH	W	54	33.631	30.717	62.396	1.00	41.64
	ATOM	4963	O	HOH	W	55	43.987	48.530	91.269	1.00	50.99
	ATOM	4964	O	HOH	W	56	23.412	28.584	85.186	1.00	69.23
	ATOM	4965	O	HOH	W	57	39.834	28.057	72.257	1.00	81.00
	ATOM	4966	O	HOH	W	58	2.892	25.685	69.907	1.00	38.96
50	ATOM	4967	O	HOH	W	59	10.284	47.120	72.671	1.00	40.28
	ATOM	4968	O	HOH	W	60	32.645	39.037	76.746	1.00	21.71
	ATOM	4969	O	HOH	W	61	43.535	48.019	95.228	1.00	37.69
	ATOM	4970	O	HOH	W	62	11.991	51.053	43.479	1.00	41.05
	ATOM	4971	O	HOH	W	63	18.329	56.527	89.388	1.00	28.51
55	ATOM	4972	O	HOH	W	64	16.555	9.309	68.875	1.00	89.05
	ATOM	4973	O	HOH	W	65	23.741	44.759	73.150	1.00	38.43
	ATOM	4974	O	HOH	W	66	19.093	53.805	41.239	1.00	55.25
	ATOM	4975	O	HOH	W	67	31.750	60.369	56.933	1.00	92.26
	ATOM	4976	O	HOH	W	68	24.836	68.428	80.926	1.00	59.25
60	ATOM	4977	O	HOH	W	69	-21.014	19.446	48.342	1.00	52.24
	ATOM	4978	O	HOH	W	70	11.318	68.028	86.566	1.00	77.81
	ATOM	4979	O	HOH	W	71	5.312	60.076	63.511	1.00	36.83
	ATOM	4980	O	HOH	W	72	7.689	20.219	84.680	1.00	32.24
	ATOM	4981	O	HOH	W	73	34.988	44.708	64.746	1.00	40.73
	ATOM	4982	O	HOH	W	74	10.614	49.644	41.337	1.00	38.90

	ATOM	4983	O	HOH	W	75	19.349	42.973	64.739	1.00	54.53
	ATOM	4984	O	HOH	W	76	35.916	30.862	80.753	1.00	55.38
	ATOM	4985	O	HOH	W	77	9.666	26.046	46.603	1.00	40.09
5	ATOM	4986	O	HOH	W	78	-10.171	46.751	60.237	1.00	29.78
	ATOM	4987	O	HOH	W	79	46.751	58.883	86.875	1.00	35.92
	ATOM	4988	O	HOH	W	80	19.320	32.528	51.000	1.00	33.36
	ATOM	4989	O	HOH	W	81	28.815	39.568	66.176	1.00	59.19
	ATOM	4990	O	HOH	W	82	38.207	35.773	73.585	1.00	17.81
10	ATOM	4991	O	HOH	W	83	23.802	33.925	75.175	1.00	25.19
	ATOM	4992	O	HOH	W	84	42.241	51.290	99.896	1.00	15.88
	ATOM	4993	O	HOH	W	85	3.751	36.678	58.842	1.00	24.97
	ATOM	4994	O	HOH	W	86	-7.009	40.341	62.580	1.00	25.39
	ATOM	4995	O	HOH	W	87	11.735	58.910	68.155	1.00	39.70
15	ATOM	4996	O	HOH	W	88	13.986	52.835	42.224	1.00	50.91
	ATOM	4997	O	HOH	W	89	1.452	46.541	69.459	1.00	35.03
	ATOM	4998	O	HOH	W	90	-1.938	55.310	56.971	1.00	28.10
	ATOM	4999	O	HOH	W	91	13.801	66.947	52.600	1.00	38.65
	ATOM	5000	O	HOH	W	92	21.594	47.218	79.203	1.00	30.31
20	ATOM	5001	O	HOH	W	93	10.639	58.632	90.827	1.00	43.78
	ATOM	5002	O	HOH	W	94	33.335	53.550	68.086	1.00	37.04
	ATOM	5003	O	HOH	W	95	-1.984	28.738	60.212	1.00	31.56
	ATOM	5004	O	HOH	W	96	-4.958	51.055	59.250	1.00	34.00
	ATOM	5005	O	HOH	W	97	17.610	39.701	51.503	1.00	28.27
25	ATOM	5006	O	HOH	W	98	10.686	54.166	67.565	1.00	37.68
	ATOM	5007	O	HOH	W	99	20.567	43.859	78.621	1.00	41.57
	ATOM	5008	O	HOH	W	100	7.013	22.332	69.109	1.00	28.72
	ATOM	5009	O	HOH	W	101	10.097	53.225	78.477	1.00	35.68
	ATOM	5010	O	HOH	W	102	10.849	31.404	53.014	1.00	32.22
30	ATOM	5011	O	HOH	W	103	42.381	59.035	94.728	1.00	36.00
	ATOM	5012	O	HOH	W	104	17.234	41.111	54.082	1.00	33.65
	ATOM	5013	O	HOH	W	105	26.902	62.025	81.989	1.00	34.70
	ATOM	5014	O	HOH	W	106	-14.313	49.559	56.204	1.00	54.36
	ATOM	5015	O	HOH	W	107	41.646	57.501	101.015	1.00	68.12
35	ATOM	5016	O	HOH	W	108	26.759	43.000	47.219	1.00	32.69
	ATOM	5017	O	HOH	W	109	16.624	48.119	46.545	1.00	38.64
	ATOM	5018	O	HOH	W	110	26.159	32.793	75.230	1.00	24.77
	ATOM	5019	O	HOH	W	111	2.101	33.468	67.006	1.00	31.50
	ATOM	5020	O	HOH	W	112	38.114	36.374	87.451	1.00	44.06
40	ATOM	5021	O	HOH	W	113	13.211	29.810	61.356	1.00	33.81
	ATOM	5022	O	HOH	W	114	-3.064	37.863	40.673	1.00	37.92
	ATOM	5023	O	HOH	W	115	15.007	47.948	69.488	1.00	28.23
	ATOM	5024	O	HOH	W	116	27.101	66.633	80.518	1.00	41.24
	ATOM	5025	O	HOH	W	117	11.870	38.304	43.174	1.00	40.85
45	ATOM	5026	O	HOH	W	118	-13.844	25.597	58.258	1.00	53.75
	ATOM	5027	O	HOH	W	119	2.929	41.135	59.858	1.00	36.49
	ATOM	5028	O	HOH	W	120	24.890	45.490	82.167	1.00	41.65
	ATOM	5029	O	HOH	W	121	36.062	59.335	75.090	1.00	38.82
	ATOM	5030	O	HOH	W	122	-10.715	32.037	61.699	1.00	78.82
50	ATOM	5031	O	HOH	W	123	-2.646	25.492	60.812	1.00	48.40
	ATOM	5032	O	HOH	W	124	-8.948	46.831	63.556	1.00	48.06
	ATOM	5033	O	HOH	W	125	-17.843	39.367	36.020	1.00	35.80
	ATOM	5034	O	HOH	W	126	2.218	57.766	62.253	1.00	44.61
	ATOM	5035	O	HOH	W	127	10.736	62.766	64.366	1.00	55.84
55	ATOM	5036	O	HOH	W	128	0.884	35.562	63.963	1.00	44.14
	ATOM	5037	O	HOH	W	129	19.165	59.557	60.644	1.00	47.82
	ATOM	5038	O	HOH	W	130	1.546	27.875	68.443	1.00	39.69
	ATOM	5039	O	HOH	W	131	5.497	26.285	76.668	1.00	44.47
	ATOM	5040	O	HOH	W	132	14.505	36.538	88.996	1.00	40.00
60	ATOM	5041	O	HOH	W	133	8.534	28.713	88.519	1.00	46.55
	ATOM	5042	O	HOH	W	134	6.125	45.267	77.959	1.00	45.57
	ATOM	5043	O	HOH	W	135	26.016	18.543	78.878	1.00	51.65
	ATOM	5044	O	HOH	W	136	33.880	23.025	70.739	1.00	46.95
	ATOM	5045	O	HOH	W	137	19.230	26.073	49.998	1.00	51.97
	ATOM	5046	O	HOH	W	138	41.563	41.085	77.326	1.00	43.14

	ATOM	5047	O	HOH W 139	39.187	63.067	75.380	1.00	56.52
	ATOM	5048	O	HOH W 140	26.878	54.491	67.203	1.00	42.14
	ATOM	5049	O	HOH W 141	22.988	62.189	74.174	1.00	48.31
5	ATOM	5050	O	HOH W 142	25.190	62.803	71.067	1.00	67.16
	ATOM	5051	O	HOH W 143	18.598	45.126	81.949	1.00	53.80
	ATOM	5052	O	HOH W 144	19.782	53.129	90.556	1.00	48.73
	ATOM	5053	O	HOH W 145	21.735	48.367	86.454	1.00	40.39
	ATOM	5054	O	HOH W 146	25.707	57.012	93.476	1.00	53.61
10	ATOM	5055	O	HOH W 147	22.832	62.085	93.149	1.00	46.02
	ATOM	5056	O	HOH W 148	25.725	67.203	89.990	1.00	75.23
	ATOM	5057	O	HOH W 149	10.773	53.653	85.697	1.00	50.65
	ATOM	5058	O	HOH W 150	4.221	58.449	86.608	1.00	49.23
	ATOM	5059	O	HOH W 151	7.790	72.096	84.410	1.00	51.10
15	ATOM	5060	O	HOH W 152	2.387	58.282	67.835	1.00	33.29
	ATOM	5061	O	HOH W 153	0.921	49.551	69.095	1.00	59.60
	ATOM	5062	O	HOH W 154	8.722	45.171	71.561	1.00	46.56
	ATOM	5063	O	HOH W 155	6.422	47.947	81.081	1.00	57.56
	ATOM	5064	O	HOH W 156	15.936	56.908	55.129	1.00	43.33
20	ATOM	5065	O	HOH W 157	3.032	19.635	62.453	1.00	80.38
	ATOM	5066	O	HOH W 158	-4.228	58.058	47.057	1.00	39.66
	ATOM	5067	O	HOH W 159	1.197	41.002	78.942	1.00	57.22
	ATOM	5068	O	HOH W 160	1.259	43.651	68.100	1.00	37.94
	ATOM	5069	O	HOH W 161	25.799	64.833	56.690	1.00	38.96
25	ATOM	5070	O	HOH W 162	-11.853	45.054	45.070	1.00	38.38
	ATOM	5071	O	HOH W 163	40.159	31.033	78.548	1.00	75.36
	ATOM	5072	O	HOH W 164	21.477	20.377	79.349	1.00	35.96
	ATOM	5073	O	HOH W 165	26.347	44.558	72.803	1.00	42.21
	ATOM	5074	O	HOH W 166	16.446	61.207	59.687	1.00	39.70
30	ATOM	5075	O	HOH W 167	27.695	64.216	82.410	1.00	44.71
	ATOM	5076	O	HOH W 168	-2.998	57.511	34.738	1.00	45.35
	ATOM	5077	O	HOH W 169	6.608	51.527	60.826	1.00	39.48
	ATOM	5078	O	HOH W 170	31.104	28.934	81.337	1.00	43.19
	ATOM	5079	O	HOH W 171	10.135	28.233	45.533	1.00	41.24
35	ATOM	5080	O	HOH W 172	8.201	43.960	75.322	1.00	37.71
	ATOM	5081	O	HOH W 173	13.799	66.601	85.597	1.00	34.74
	ATOM	5082	O	HOH W 174	16.664	53.670	65.006	1.00	43.69
	ATOM	5083	O	HOH W 175	18.301	47.296	43.793	1.00	45.84
	ATOM	5084	O	HOH W 176	11.717	61.868	52.648	1.00	34.93
40	ATOM	5085	O	HOH W 177	29.516	23.822	76.838	1.00	51.50
	ATOM	5086	O	HOH W 178	39.940	60.509	78.535	1.00	46.33
	ATOM	5087	O	HOH W 179	-1.803	44.974	37.278	1.00	52.56
	ATOM	5088	O	HOH W 180	7.343	47.305	65.468	1.00	47.27
	ATOM	5089	O	HOH W 181	17.912	15.338	81.793	1.00	50.08
45	ATOM	5090	O	HOH W 182	-4.631	55.917	82.183	1.00	65.36
	ATOM	5091	O	HOH W 183	32.973	42.656	86.667	1.00	43.97
	ATOM	5092	O	HOH W 184	-1.834	36.784	71.040	1.00	45.10
	ATOM	5093	O	HOH W 185	-4.519	34.633	71.838	1.00	43.99
	ATOM	5094	O	HOH W 186	4.518	68.554	71.661	1.00	46.99
50	ATOM	5095	O	HOH W 187	2.774	37.503	61.490	1.00	45.81
	ATOM	5096	O	HOH W 188	31.770	43.526	51.410	1.00	58.02
	ATOM	5097	O	HOH W 189	5.471	43.861	38.891	1.00	49.43
	ATOM	5098	O	HOH W 190	11.934	58.219	70.811	1.00	49.96
	ATOM	5099	O	HOH W 191	33.112	26.203	70.484	1.00	60.03
55	ATOM	5100	O	HOH W 192	30.914	43.017	70.613	1.00	73.23
	ATOM	5101	O	HOH W 193	0.400	39.300	39.714	1.00	65.37
	ATOM	5102	O	HOH W 194	48.247	56.159	86.370	1.00	60.09
	ATOM	5103	O	HOH W 195	12.359	59.992	62.698	1.00	53.57
	ATOM	5104	O	HOH W 196	11.149	17.504	78.264	1.00	54.43
60	ATOM	5105	O	HOH W 197	-4.284	31.953	60.991	1.00	47.12
	ATOM	5106	O	HOH W 198	29.888	35.624	82.772	1.00	52.16
	ATOM	5107	O	HOH W 199	14.388	39.115	89.656	1.00	47.93
	ATOM	5108	O	HOH W 200	-8.529	51.475	47.745	1.00	61.00
	ATOM	5109	O	HOH W 201	-15.572	53.338	52.008	1.00	72.42
	ATOM	5110	O	HOH W 202	24.319	38.590	87.128	1.00	50.03



**Table 11: Structure coordinates of LTA<sub>4</sub> hydrolase-hydroxamic acid complex**

	CRYST	67.770	132.470	83.700	90.00	90.00	90.00	P21212	
		Atom	res.	Chain No.	x	y	z	occ	B-factor
5	ATOM	1	N	PRO A	1	-2.215	16.942	65.912	1.00 98.67
	ATOM	2	CA	PRO A	1	-2.492	18.109	66.739	1.00 96.57
	ATOM	3	C	PRO A	1	-1.985	19.345	66.046	1.00 90.92
	ATOM	4	O	PRO A	1	-0.791	19.459	65.732	1.00 87.94
	ATOM	5	CB	PRO A	1	-1.747	17.907	68.073	1.00 98.18
10	ATOM	6	CG	PRO A	1	-1.000	16.573	67.973	1.00100.00
	ATOM	7	CD	PRO A	1	-1.249	16.011	66.573	1.00 97.96
	ATOM	8	N	GLU A	2	-2.895	20.262	65.790	1.00 83.08
	ATOM	9	CA	GLU A	2	-2.492	21.448	65.116	1.00 81.25
	ATOM	10	C	GLU A	2	-1.948	22.471	66.074	1.00 80.21
15	ATOM	11	O	GLU A	2	-2.444	22.625	67.189	1.00 80.90
	ATOM	12	CB	GLU A	2	-3.549	22.038	64.168	1.00 82.10
	ATOM	13	CG	GLU A	2	-2.895	22.838	63.023	1.00 92.94
	ATOM	14	CD	GLU A	2	-1.451	22.466	62.778	1.00 95.77
	ATOM	15	OE1	GLU A	2	-0.520	23.237	62.917	1.00 94.64
20	ATOM	16	OE2	GLU A	2	-1.307	21.231	62.383	1.00 74.00
	ATOM	17	N	ILE A	3	-0.898	23.141	65.624	1.00 69.91
	ATOM	18	CA	ILE A	3	-0.300	24.192	66.393	1.00 66.19
	ATOM	19	C	ILE A	3	-1.124	25.431	66.042	1.00 60.35
	ATOM	20	O	ILE A	3	-1.438	25.713	64.866	1.00 60.57
25	ATOM	21	CB	ILE A	3	1.215	24.316	66.167	1.00 69.46
	ATOM	22	CG1	ILE A	3	1.919	23.117	66.809	1.00 69.22
	ATOM	23	CG2	ILE A	3	1.772	25.604	66.769	1.00 70.57
	ATOM	24	CD1	ILE A	3	2.674	23.468	68.090	1.00 67.16
	ATOM	25	N	VAL A	4	-1.546	26.135	67.071	1.00 47.12
30	ATOM	26	CA	VAL A	4	-2.372	27.296	66.856	1.00 43.66
	ATOM	27	C	VAL A	4	-1.621	28.601	66.943	1.00 36.61
	ATOM	28	O	VAL A	4	-0.804	28.799	67.843	1.00 33.97
	ATOM	29	CB	VAL A	4	-3.580	27.282	67.811	1.00 46.37
	ATOM	30	CG1	VAL A	4	-4.296	28.636	67.855	1.00 44.31
35	ATOM	31	CG2	VAL A	4	-4.552	26.203	67.353	1.00 45.89
	ATOM	32	N	ASP A	5	-1.920	29.496	65.997	1.00 25.42
	ATOM	33	CA	ASP A	5	-1.311	30.793	66.050	1.00 22.70
	ATOM	34	C	ASP A	5	-2.262	31.630	66.874	1.00 26.31
	ATOM	35	O	ASP A	5	-3.285	32.069	66.397	1.00 25.00
40	ATOM	36	CB	ASP A	5	-1.083	31.454	64.687	1.00 23.91
	ATOM	37	CG	ASP A	5	-0.248	32.685	64.868	1.00 28.48
	ATOM	38	OD1	ASP A	5	-0.199	33.272	65.935	1.00 27.12
	ATOM	39	OD2	ASP A	5	0.383	33.068	63.776	1.00 23.01
	ATOM	40	N	THR A	6	-1.942	31.792	68.144	1.00 25.96
45	ATOM	41	CA	THR A	6	-2.799	32.525	69.029	1.00 23.74
	ATOM	42	C	THR A	6	-2.689	34.005	68.859	1.00 27.92
	ATOM	43	O	THR A	6	-3.169	34.763	69.701	1.00 31.80
	ATOM	44	CB	THR A	6	-2.629	32.111	70.483	1.00 25.94
	ATOM	45	OG1	THR A	6	-1.315	32.422	70.891	1.00 40.88
50	ATOM	46	CG2	THR A	6	-2.867	30.609	70.627	1.00 29.05
	ATOM	47	N	CYS A	7	-2.068	34.442	67.779	1.00 23.72
	ATOM	48	CA	CYS A	7	-1.967	35.893	67.566	1.00 24.38
	ATOM	49	C	CYS A	7	-2.737	36.321	66.325	1.00 28.42
	ATOM	50	O	CYS A	7	-2.766	37.475	65.965	1.00 27.59
55	ATOM	51	CB	CYS A	7	-0.516	36.435	67.449	1.00 23.86
	ATOM	52	SG	CYS A	7	0.510	36.080	68.886	1.00 29.33
	ATOM	53	N	SER A	8	-3.324	35.370	65.638	1.00 27.23
	ATOM	54	CA	SER A	8	-4.020	35.686	64.419	1.00 25.64
	ATOM	55	C	SER A	8	-5.479	35.340	64.538	1.00 25.31
60	ATOM	56	O	SER A	8	-5.867	34.421	65.273	1.00 22.83
	ATOM	57	CB	SER A	8	-3.368	34.908	63.278	1.00 26.35
	ATOM	58	OG	SER A	8	-4.090	35.105	62.093	1.00 29.02

	ATOM	59	N	LEU	A	9	-6.298	36.071	63.799	1.00	20.95
	ATOM	60	CA	LEU	A	9	-7.720	35.750	63.869	1.00	20.81
	ATOM	61	C	LEU	A	9	-8.188	35.158	62.554	1.00	24.77
5	ATOM	62	O	LEU	A	9	-9.364	34.872	62.381	1.00	28.22
	ATOM	63	CB	LEU	A	9	-8.573	36.991	64.170	1.00	20.29
	ATOM	64	CG	LEU	A	9	-8.171	37.744	65.434	1.00	21.06
	ATOM	65	CD1	LEU	A	9	-8.875	39.088	65.438	1.00	22.40
	ATOM	66	CD2	LEU	A	9	-8.576	36.926	66.656	1.00	15.77
10	ATOM	67	N	ALA	A	10	-7.240	35.040	61.630	1.00	22.60
	ATOM	68	CA	ALA	A	10	-7.461	34.528	60.294	1.00	17.85
	ATOM	69	C	ALA	A	10	-7.633	33.039	60.254	1.00	23.94
	ATOM	70	O	ALA	A	10	-7.281	32.298	61.178	1.00	22.85
	ATOM	71	CB	ALA	A	10	-6.291	34.891	59.397	1.00	15.48
15	ATOM	72	N	SER	A	11	-8.170	32.590	59.129	1.00	25.50
	ATOM	73	CA	SER	A	11	-8.306	31.156	58.921	1.00	27.59
	ATOM	74	C	SER	A	11	-6.887	30.575	58.992	1.00	25.13
	ATOM	75	O	SER	A	11	-5.938	31.112	58.437	1.00	26.43
	ATOM	76	CB	SER	A	11	-8.917	30.833	57.544	1.00	29.01
	ATOM	77	OG	SER	A	11	-10.241	31.338	57.445	1.00	28.50
20	ATOM	78	N	PRO	A	12	-6.740	29.460	59.662	1.00	23.36
	ATOM	79	CA	PRO	A	12	-5.445	28.827	59.798	1.00	20.96
	ATOM	80	C	PRO	A	12	-4.949	28.121	58.533	1.00	34.02
	ATOM	81	O	PRO	A	12	-5.743	27.764	57.646	1.00	34.95
25	ATOM	82	CB	PRO	A	12	-5.590	27.834	60.952	1.00	22.26
	ATOM	83	CG	PRO	A	12	-7.080	27.652	61.201	1.00	29.49
	ATOM	84	CD	PRO	A	12	-7.769	28.845	60.542	1.00	25.95
	ATOM	85	N	ALA	A	13	-3.615	27.927	58.479	1.00	29.46
	ATOM	86	CA	ALA	A	13	-2.922	27.276	57.385	1.00	25.81
30	ATOM	87	C	ALA	A	13	-3.531	25.912	57.109	1.00	27.87
	ATOM	88	O	ALA	A	13	-3.320	25.321	56.072	1.00	30.10
	ATOM	89	CB	ALA	A	13	-1.458	27.115	57.746	1.00	25.60
	ATOM	90	N	SER	A	14	-4.288	25.389	58.038	1.00	20.61
	ATOM	91	CA	SER	A	14	-4.876	24.090	57.814	1.00	24.37
	ATOM	92	C	SER	A	14	-6.230	24.183	57.108	1.00	32.80
35	ATOM	93	O	SER	A	14	-6.831	23.183	56.733	1.00	35.15
	ATOM	94	CB	SER	A	14	-5.031	23.366	59.137	1.00	29.06
	ATOM	95	OG	SER	A	14	-5.775	24.180	60.037	1.00	31.14
	ATOM	96	N	VAL	A	15	-6.721	25.392	56.944	1.00	24.99
40	ATOM	97	CA	VAL	A	15	-7.984	25.582	56.278	1.00	25.26
	ATOM	98	C	VAL	A	15	-7.774	26.148	54.865	1.00	27.71
	ATOM	99	O	VAL	A	15	-8.348	25.688	53.886	1.00	27.54
	ATOM	100	CB	VAL	A	15	-8.876	26.466	57.127	1.00	29.72
	ATOM	101	CG1	VAL	A	15	-9.999	27.045	56.271	1.00	30.81
	ATOM	102	CG2	VAL	A	15	-9.411	25.656	58.298	1.00	27.89
45	ATOM	103	N	CYS	A	16	-6.921	27.144	54.764	1.00	20.14
	ATOM	104	CA	CYS	A	16	-6.594	27.769	53.503	1.00	24.17
	ATOM	105	C	CYS	A	16	-5.265	28.490	53.629	1.00	26.96
	ATOM	106	O	CYS	A	16	-4.834	28.793	54.744	1.00	28.25
50	ATOM	107	CB	CYS	A	16	-7.703	28.694	52.944	1.00	28.08
	ATOM	108	SG	CYS	A	16	-7.881	30.231	53.880	1.00	34.58
	ATOM	109	N	ARG	A	17	-4.622	28.749	52.496	1.00	20.39
	ATOM	110	CA	ARG	A	17	-3.344	29.409	52.520	1.00	22.15
	ATOM	111	C	ARG	A	17	-3.186	30.347	51.365	1.00	26.96
55	ATOM	112	O	ARG	A	17	-3.415	30.002	50.202	1.00	23.44
	ATOM	113	CB	ARG	A	17	-2.147	28.451	52.443	1.00	26.39
	ATOM	114	CG	ARG	A	17	-2.231	27.181	53.264	1.00	24.30
	ATOM	115	CD	ARG	A	17	-1.416	26.086	52.599	1.00	28.56
	ATOM	116	NE	ARG	A	17	-0.772	25.134	53.510	1.00	51.45
60	ATOM	117	CZ	ARG	A	17	-1.392	24.225	54.263	1.00	69.75
	ATOM	118	NH1	ARG	A	17	-2.693	24.086	54.287	1.00	72.82
	ATOM	119	NH2	ARG	A	17	-0.694	23.418	55.032	1.00	48.88
	ATOM	120	N	THR	A	18	-2.723	31.532	51.700	1.00	21.89
	ATOM	121	CA	THR	A	18	-2.478	32.539	50.713	1.00	20.46
	ATOM	122	C	THR	A	18	-1.200	32.197	50.007	1.00	27.00



	ATOM	123	O	THR	A	18	-0.207	31.923	50.662	1.00	26.28
	ATOM	124	CB	THR	A	18	-2.370	33.949	51.337	1.00	21.64
	ATOM	125	OG1	THR	A	18	-3.539	34.262	52.076	1.00	25.03
	ATOM	126	CG2	THR	A	18	-2.164	34.944	50.211	1.00	21.73
5	ATOM	127	N	LYS	A	19	-1.235	32.203	48.677	1.00	22.54
	ATOM	128	CA	LYS	A	19	-0.091	31.871	47.864	1.00	21.16
	ATOM	129	C	LYS	A	19	0.538	33.063	47.238	1.00	23.51
	ATOM	130	O	LYS	A	19	1.732	33.098	46.968	1.00	23.00
	ATOM	131	CB	LYS	A	19	-0.557	30.976	46.740	1.00	24.60
10	ATOM	132	CG	LYS	A	19	-1.311	29.775	47.257	1.00	34.24
	ATOM	133	CD	LYS	A	19	-0.944	29.419	48.688	1.00	65.32
	ATOM	134	CE	LYS	A	19	0.230	28.442	48.793	1.00	75.40
	ATOM	135	NZ	LYS	A	19	1.183	28.796	49.864	1.00	66.99
	ATOM	136	N	HIS	A	20	-0.280	34.053	46.967	1.00	22.30
15	ATOM	137	CA	HIS	A	20	0.201	35.250	46.309	1.00	20.94
	ATOM	138	C	HIS	A	20	-0.588	36.484	46.673	1.00	23.90
	ATOM	139	O	HIS	A	20	-1.779	36.414	47.022	1.00	23.31
	ATOM	140	CB	HIS	A	20	0.054	35.095	44.801	1.00	19.15
	ATOM	141	CG	HIS	A	20	0.888	36.085	44.129	1.00	20.96
20	ATOM	142	ND1	HIS	A	20	2.258	36.003	44.163	1.00	22.60
	ATOM	143	CD2	HIS	A	20	0.538	37.198	43.437	1.00	24.10
	ATOM	144	CE1	HIS	A	20	2.725	37.040	43.496	1.00	23.71
	ATOM	145	NE2	HIS	A	20	1.708	37.784	43.025	1.00	24.51
	ATOM	146	N	LEU	A	21	0.105	37.600	46.594	1.00	26.18
25	ATOM	147	CA	LEU	A	21	-0.484	38.893	46.871	1.00	27.24
	ATOM	148	C	LEU	A	21	-0.104	39.856	45.805	1.00	27.01
	ATOM	149	O	LEU	A	21	1.076	40.014	45.522	1.00	27.97
	ATOM	150	CB	LEU	A	21	-0.064	39.501	48.215	1.00	28.80
	ATOM	151	CG	LEU	A	21	-0.335	41.006	48.296	1.00	34.13
30	ATOM	152	CD1	LEU	A	21	-1.834	41.309	48.440	1.00	36.26
	ATOM	153	CD2	LEU	A	21	0.393	41.578	49.504	1.00	36.24
	ATOM	154	N	HIS	A	22	-1.110	40.475	45.203	1.00	28.25
	ATOM	155	CA	HIS	A	22	-0.852	41.482	44.186	1.00	30.03
	ATOM	156	C	HIS	A	22	-1.272	42.800	44.795	1.00	31.36
35	ATOM	157	O	HIS	A	22	-2.435	42.993	45.127	1.00	30.57
	ATOM	158	CB	HIS	A	22	-1.560	41.291	42.844	1.00	31.66
	ATOM	159	CG	HIS	A	22	-1.060	42.347	41.913	1.00	34.36
	ATOM	160	ND1	HIS	A	22	-1.913	43.134	41.187	1.00	37.39
	ATOM	161	CD2	HIS	A	22	0.208	42.734	41.635	1.00	37.45
40	ATOM	162	CE1	HIS	A	22	-1.155	43.968	40.481	1.00	38.02
	ATOM	163	NE2	HIS	A	22	0.132	43.757	40.730	1.00	37.95
	ATOM	164	N	LEU	A	23	-0.315	43.668	45.000	1.00	31.07
	ATOM	165	CA	LEU	A	23	-0.593	44.939	45.637	1.00	31.63
	ATOM	166	C	LEU	A	23	-0.469	46.144	44.705	1.00	32.72
45	ATOM	167	O	LEU	A	23	0.563	46.431	44.093	1.00	34.74
	ATOM	168	CB	LEU	A	23	0.299	45.093	46.894	1.00	31.20
	ATOM	169	CG	LEU	A	23	-0.320	45.795	48.126	1.00	34.26
	ATOM	170	CD1	LEU	A	23	0.543	46.966	48.510	1.00	32.64
	ATOM	171	CD2	LEU	A	23	-1.759	46.263	47.957	1.00	34.32
50	ATOM	172	N	ARG	A	24	-1.576	46.840	44.623	1.00	28.33
	ATOM	173	CA	ARG	A	24	-1.681	48.040	43.837	1.00	30.28
	ATOM	174	C	ARG	A	24	-2.162	49.119	44.794	1.00	35.16
	ATOM	175	O	ARG	A	24	-3.251	49.005	45.349	1.00	35.74
	ATOM	176	CB	ARG	A	24	-2.651	47.860	42.689	1.00	32.69
55	ATOM	177	CG	ARG	A	24	-1.962	47.363	41.423	1.00	55.58
	ATOM	178	CD	ARG	A	24	-2.732	47.698	40.144	1.00	67.44
	ATOM	179	NE	ARG	A	24	-3.993	46.971	40.030	1.00	64.57
	ATOM	180	CZ	ARG	A	24	-5.150	47.440	40.498	1.00	97.41
	ATOM	181	NH1	ARG	A	24	-5.246	48.624	41.108	1.00	81.55
60	ATOM	182	NH2	ARG	A	24	-6.249	46.713	40.344	1.00	100.00
	ATOM	183	N	CYS	A	25	-1.320	50.126	45.045	1.00	36.40
	ATOM	184	CA	CYS	A	25	-1.696	51.181	45.998	1.00	36.70
	ATOM	185	C	CYS	A	25	-0.996	52.522	45.815	1.00	34.57
	ATOM	186	O	CYS	A	25	0.030	52.676	45.100	1.00	30.46

5	ATOM	187	CB	CYS	A	25	-1.599	50.732	47.481	1.00	37.45
	ATOM	188	SG	CYS	A	25	0.119	50.641	48.047	1.00	41.07
	ATOM	189	N	SER	A	26	-1.606	53.493	46.507	1.00	32.19
	ATOM	190	CA	SER	A	26	-1.098	54.841	46.486	1.00	32.91
	ATOM	191	C	SER	A	26	-0.861	55.372	47.877	1.00	28.73
10	ATOM	192	O	SER	A	26	-1.638	55.107	48.802	1.00	24.93
	ATOM	193	CB	SER	A	26	-1.884	55.825	45.626	1.00	41.21
	ATOM	194	OG	SER	A	26	-0.987	56.748	45.012	1.00	55.61
	ATOM	195	N	VAL	A	27	0.258	56.092	47.964	1.00	28.06
	ATOM	196	CA	VAL	A	27	0.719	56.718	49.172	1.00	29.85
15	ATOM	197	C	VAL	A	27	0.330	58.199	49.211	1.00	33.50
	ATOM	198	O	VAL	A	27	0.868	59.024	48.443	1.00	31.85
	ATOM	199	CB	VAL	A	27	2.217	56.509	49.370	1.00	34.37
	ATOM	200	CG1	VAL	A	27	2.605	57.003	50.774	1.00	35.81
	ATOM	201	CG2	VAL	A	27	2.481	55.004	49.263	1.00	33.03
20	ATOM	202	N	ASP	A	28	-0.626	58.489	50.106	1.00	31.46
	ATOM	203	CA	ASP	A	28	-1.137	59.841	50.327	1.00	32.29
	ATOM	204	C	ASP	A	28	-0.700	60.403	51.687	1.00	27.74
	ATOM	205	O	ASP	A	28	-1.254	60.057	52.728	1.00	25.85
	ATOM	206	CB	ASP	A	28	-2.663	59.943	50.144	1.00	35.45
25	ATOM	207	CG	ASP	A	28	-3.158	61.380	50.016	1.00	43.54
	ATOM	208	OD1	ASP	A	28	-2.559	62.348	50.463	1.00	39.89
	ATOM	209	OD2	ASP	A	28	-4.290	61.467	49.353	1.00	50.90
	ATOM	210	N	PHE	A	29	0.311	61.251	51.614	1.00	29.04
	ATOM	211	CA	PHE	A	29	0.913	61.918	52.741	1.00	32.69
30	ATOM	212	C	PHE	A	29	0.011	63.004	53.317	1.00	46.23
	ATOM	213	O	PHE	A	29	0.021	63.341	54.511	1.00	49.95
	ATOM	214	CB	PHE	A	29	2.199	62.568	52.288	1.00	34.84
	ATOM	215	CG	PHE	A	29	3.371	61.627	52.322	1.00	37.91
	ATOM	216	CD1	PHE	A	29	3.961	61.270	53.534	1.00	39.04
35	ATOM	217	CD2	PHE	A	29	3.893	61.111	51.136	1.00	39.45
	ATOM	218	CE1	PHE	A	29	5.064	60.419	53.565	1.00	39.96
	ATOM	219	CE2	PHE	A	29	4.992	60.254	51.153	1.00	43.33
	ATOM	220	CZ	PHE	A	29	5.573	59.908	52.373	1.00	39.81
	ATOM	221	N	THR	A	30	-0.788	63.569	52.445	1.00	43.44
40	ATOM	222	CA	THR	A	30	-1.695	64.590	52.870	1.00	40.68
	ATOM	223	C	THR	A	30	-2.776	63.990	53.751	1.00	36.25
	ATOM	224	O	THR	A	30	-3.160	64.575	54.741	1.00	37.59
	ATOM	225	CB	THR	A	30	-2.241	65.353	51.661	1.00	44.14
	ATOM	226	OG1	THR	A	30	-1.312	66.379	51.280	1.00	35.00
45	ATOM	227	CG2	THR	A	30	-3.634	65.886	51.979	1.00	42.00
	ATOM	228	N	ARG	A	31	-3.249	62.803	53.426	1.00	23.27
	ATOM	229	CA	ARG	A	31	-4.258	62.179	54.263	1.00	22.52
	ATOM	230	C	ARG	A	31	-3.670	61.084	55.187	1.00	28.33
	ATOM	231	O	ARG	A	31	-4.388	60.485	56.013	1.00	26.36
50	ATOM	232	CB	ARG	A	31	-5.360	61.545	53.423	1.00	29.16
	ATOM	233	CG	ARG	A	31	-6.236	62.579	52.723	1.00	52.89
	ATOM	234	CD	ARG	A	31	-6.324	62.368	51.215	1.00	63.14
	ATOM	235	NE	ARG	A	31	-5.912	63.537	50.434	1.00	56.84
	ATOM	236	CZ	ARG	A	31	-6.777	64.353	49.868	1.00	58.33
55	ATOM	237	NH1	ARG	A	31	-8.084	64.154	49.996	1.00	45.96
	ATOM	238	NH2	ARG	A	31	-6.335	65.393	49.166	1.00	57.96
	ATOM	239	N	ARG	A	32	-2.353	60.838	55.018	1.00	28.39
	ATOM	240	CA	ARG	A	32	-1.587	59.832	55.754	1.00	28.42
	ATOM	241	C	ARG	A	32	-2.248	58.498	55.548	1.00	31.13
60	ATOM	242	O	ARG	A	32	-2.553	57.754	56.484	1.00	26.52
	ATOM	243	CB	ARG	A	32	-1.353	60.163	57.233	1.00	22.96
	ATOM	244	CG	ARG	A	32	-1.083	61.654	57.442	1.00	46.47
	ATOM	245	CD	ARG	A	32	0.247	62.022	58.108	1.00	65.92
	ATOM	246	NE	ARG	A	32	0.307	61.670	59.532	1.00	62.95
	ATOM	247	CZ	ARG	A	32	1.244	62.060	60.403	1.00	56.24
	ATOM	248	NH1	ARG	A	32	2.259	62.862	60.090	1.00	38.45
	ATOM	249	NH2	ARG	A	32	1.150	61.628	61.644	1.00	38.26
	ATOM	250	N	THR	A	33	-2.503	58.222	54.278	1.00	30.15

	ATOM	251	CA	THR	A	33	-3.148	56.969	53.940	1.00	30.69
	ATOM	252	C	THR	A	33	-2.460	56.247	52.816	1.00	30.70
	ATOM	253	O	THR	A	33	-1.765	56.842	51.978	1.00	27.23
5	ATOM	254	CB	THR	A	33	-4.603	57.146	53.467	1.00	39.23
	ATOM	255	OG1	THR	A	33	-4.637	58.100	52.420	1.00	37.97
	ATOM	256	CG2	THR	A	33	-5.567	57.481	54.598	1.00	34.16
	ATOM	257	N	LEU	A	34	-2.719	54.950	52.842	1.00	30.87
	ATOM	258	CA	LEU	A	34	-2.279	54.012	51.842	1.00	32.01
10	ATOM	259	C	LEU	A	34	-3.598	53.483	51.332	1.00	26.54
	ATOM	260	O	LEU	A	34	-4.426	53.031	52.106	1.00	25.08
	ATOM	261	CB	LEU	A	34	-1.518	52.805	52.428	1.00	35.05
	ATOM	262	CG	LEU	A	34	-0.007	52.880	52.357	1.00	42.66
	ATOM	263	CD1	LEU	A	34	0.537	51.446	52.425	1.00	41.75
	ATOM	264	CD2	LEU	A	34	0.434	53.610	51.081	1.00	49.07
15	ATOM	265	N	THR	A	35	-3.828	53.576	50.050	1.00	27.44
	ATOM	266	CA	THR	A	35	-5.088	53.081	49.552	1.00	29.43
	ATOM	267	C	THR	A	35	-4.825	52.257	48.316	1.00	33.69
	ATOM	268	O	THR	A	35	-3.896	52.559	47.532	1.00	31.06
	ATOM	269	CB	THR	A	35	-6.004	54.248	49.195	1.00	49.67
20	ATOM	270	OG1	THR	A	35	-5.775	55.297	50.111	1.00	56.12
	ATOM	271	CG2	THR	A	35	-7.442	53.781	49.282	1.00	53.32
	ATOM	272	N	GLY	A	36	-5.638	51.220	48.172	1.00	31.25
	ATOM	273	CA	GLY	A	36	-5.509	50.336	47.024	1.00	30.78
25	ATOM	274	C	GLY	A	36	-6.314	49.072	47.144	1.00	27.36
	ATOM	275	O	GLY	A	36	-7.358	48.969	47.773	1.00	26.53
	ATOM	276	N	THR	A	37	-5.809	48.080	46.504	1.00	27.32
	ATOM	277	CA	THR	A	37	-6.478	46.793	46.579	1.00	29.08
	ATOM	278	C	THR	A	37	-5.460	45.717	46.846	1.00	29.62
	ATOM	279	O	THR	A	37	-4.321	45.787	46.370	1.00	27.85
30	ATOM	280	CB	THR	A	37	-7.268	46.425	45.311	1.00	35.94
	ATOM	281	OG1	THR	A	37	-6.546	46.790	44.142	1.00	33.45
	ATOM	282	CG2	THR	A	37	-8.601	47.144	45.350	1.00	41.23
	ATOM	283	N	ALA	A	38	-5.867	44.738	47.609	1.00	28.10
35	ATOM	284	CA	ALA	A	38	-4.934	43.674	47.856	1.00	27.55
	ATOM	285	C	ALA	A	38	-5.482	42.447	47.137	1.00	30.70
	ATOM	286	O	ALA	A	38	-6.536	41.941	47.510	1.00	31.51
	ATOM	287	CB	ALA	A	38	-4.803	43.425	49.339	1.00	26.00
	ATOM	288	N	ALA	A	39	-4.798	41.981	46.090	1.00	27.63
	ATOM	289	CA	ALA	A	39	-5.280	40.761	45.394	1.00	29.40
40	ATOM	290	C	ALA	A	39	-4.563	39.541	45.966	1.00	29.05
	ATOM	291	O	ALA	A	39	-3.371	39.333	45.734	1.00	28.04
	ATOM	292	CB	ALA	A	39	-5.024	40.787	43.888	1.00	30.14
	ATOM	293	N	LEU	A	40	-5.327	38.780	46.713	1.00	26.03
	ATOM	294	CA	LEU	A	40	-4.899	37.591	47.392	1.00	26.04
45	ATOM	295	C	LEU	A	40	-5.304	36.310	46.637	1.00	30.62
	ATOM	296	O	LEU	A	40	-6.499	36.038	46.394	1.00	28.36
	ATOM	297	CB	LEU	A	40	-5.596	37.499	48.779	1.00	24.92
	ATOM	298	CG	LEU	A	40	-5.312	38.663	49.725	1.00	27.54
	ATOM	299	CD1	LEU	A	40	-5.870	38.272	51.074	1.00	29.18
50	ATOM	300	CD2	LEU	A	40	-3.817	38.865	49.857	1.00	26.20
	ATOM	301	N	THR	A	41	-4.302	35.498	46.326	1.00	23.66
	ATOM	302	CA	THR	A	41	-4.566	34.232	45.700	1.00	23.84
	ATOM	303	C	THR	A	41	-4.509	33.259	46.841	1.00	28.24
	ATOM	304	O	THR	A	41	-3.448	33.076	47.421	1.00	28.49
55	ATOM	305	CB	THR	A	41	-3.554	33.854	44.613	1.00	38.89
	ATOM	306	OG1	THR	A	41	-3.594	34.801	43.555	1.00	32.11
	ATOM	307	CG2	THR	A	41	-3.856	32.426	44.113	1.00	33.97
	ATOM	308	N	VAL	A	42	-5.674	32.704	47.169	1.00	25.76
60	ATOM	309	CA	VAL	A	42	-5.843	31.782	48.261	1.00	26.45
	ATOM	310	C	VAL	A	42	-6.068	30.356	47.804	1.00	34.04
	ATOM	311	O	VAL	A	42	-6.730	30.118	46.795	1.00	33.15
	ATOM	312	CB	VAL	A	42	-7.024	32.223	49.113	1.00	29.66
	ATOM	313	CG1	VAL	A	42	-7.189	31.274	50.295	1.00	30.14
	ATOM	314	CG2	VAL	A	42	-6.805	33.657	49.611	1.00	28.98

	ATOM	315	N	GLN	A	43	-5.530	29.405	48.566	1.00	29.23
	ATOM	316	CA	GLN	A	43	-5.692	27.989	48.247	1.00	28.15
	ATOM	317	C	GLN	A	43	-6.357	27.171	49.356	1.00	31.60
	ATOM	318	O	GLN	A	43	-5.916	27.081	50.506	1.00	30.09
5	ATOM	319	CB	GLN	A	43	-4.401	27.337	47.748	1.00	29.76
	ATOM	320	CG	GLN	A	43	-4.305	25.877	48.214	1.00	49.25
	ATOM	321	CD	GLN	A	43	-2.920	25.308	48.018	1.00	68.40
	ATOM	322	OE1	GLN	A	43	-2.508	25.059	46.882	1.00	65.93
10	ATOM	323	NE2	GLN	A	43	-2.190	25.118	49.116	1.00	62.52
	ATOM	324	N	SER	A	44	-7.470	26.553	49.027	1.00	25.74
	ATOM	325	CA	SER	A	44	-8.159	25.793	50.027	1.00	24.21
	ATOM	326	C	SER	A	44	-7.406	24.562	50.434	1.00	31.27
	ATOM	327	O	SER	A	44	-6.701	23.950	49.642	1.00	33.21
	ATOM	328	CB	SER	A	44	-9.542	25.400	49.574	1.00	28.22
15	ATOM	329	OG	SER	A	44	-10.143	24.569	50.550	1.00	36.23
	ATOM	330	N	GLN	A	45	-7.593	24.190	51.685	1.00	29.25
	ATOM	331	CA	GLN	A	45	-6.964	23.016	52.240	1.00	32.48
	ATOM	332	C	GLN	A	45	-8.027	22.007	52.618	1.00	41.18
	ATOM	333	O	GLN	A	45	-7.757	20.936	53.165	1.00	37.68
20	ATOM	334	CB	GLN	A	45	-6.095	23.387	53.451	1.00	35.17
	ATOM	335	CG	GLN	A	45	-5.138	24.525	53.090	1.00	29.17
	ATOM	336	CD	GLN	A	45	-4.197	24.179	51.954	1.00	37.50
	ATOM	337	OE1	GLN	A	45	-4.107	24.903	50.939	1.00	44.48
	ATOM	338	NE2	GLN	A	45	-3.466	23.083	52.127	1.00	23.35
25	ATOM	339	N	GLU	A	46	-9.258	22.387	52.322	1.00	40.69
	ATOM	340	CA	GLU	A	46	-10.391	21.548	52.591	1.00	41.85
	ATOM	341	C	GLU	A	46	-11.311	21.472	51.388	1.00	46.94
	ATOM	342	O	GLU	A	46	-11.146	22.143	50.367	1.00	45.45
	ATOM	343	CB	GLU	A	46	-11.216	21.989	53.827	1.00	42.82
30	ATOM	344	CG	GLU	A	46	-10.736	23.256	54.548	1.00	48.14
	ATOM	345	CD	GLU	A	46	-11.469	23.463	55.856	1.00	62.06
	ATOM	346	OE1	GLU	A	46	-12.507	24.103	55.957	1.00	64.38
	ATOM	347	OE2	GLU	A	46	-10.880	22.875	56.871	1.00	51.57
	ATOM	348	N	ASP	A	47	-12.306	20.638	51.523	1.00	46.70
35	ATOM	349	CA	ASP	A	47	-13.261	20.543	50.464	1.00	48.51
	ATOM	350	C	ASP	A	47	-14.408	21.358	50.947	1.00	45.90
	ATOM	351	O	ASP	A	47	-14.674	21.368	52.148	1.00	41.55
	ATOM	352	CB	ASP	A	47	-13.748	19.104	50.220	1.00	52.32
	ATOM	353	CG	ASP	A	47	-12.739	18.258	49.495	1.00	80.62
40	ATOM	354	OD1	ASP	A	47	-12.338	18.505	48.364	1.00	77.22
	ATOM	355	OD2	ASP	A	47	-12.330	17.237	50.218	1.00	100.00
	ATOM	356	N	ASN	A	48	-15.067	22.044	50.045	1.00	44.45
	ATOM	357	CA	ASN	A	48	-16.209	22.826	50.475	1.00	45.83
	ATOM	358	C	ASN	A	48	-15.875	24.055	51.308	1.00	46.95
45	ATOM	359	O	ASN	A	48	-16.620	24.449	52.219	1.00	45.85
	ATOM	360	CB	ASN	A	48	-17.246	21.959	51.225	1.00	43.60
	ATOM	361	CG	ASN	A	48	-18.653	22.469	51.004	1.00	65.69
	ATOM	362	OD1	ASN	A	48	-18.924	23.191	50.027	1.00	68.02
	ATOM	363	ND2	ASN	A	48	-19.545	22.123	51.922	1.00	53.94
50	ATOM	364	N	LEU	A	49	-14.758	24.672	51.004	1.00	40.04
	ATOM	365	CA	LEU	A	49	-14.445	25.850	51.741	1.00	35.92
	ATOM	366	C	LEU	A	49	-15.377	26.909	51.178	1.00	39.46
	ATOM	367	O	LEU	A	49	-15.301	27.241	49.998	1.00	36.67
	ATOM	368	CB	LEU	A	49	-12.977	26.218	51.556	1.00	34.20
55	ATOM	369	CG	LEU	A	49	-12.623	27.492	52.307	1.00	36.68
	ATOM	370	CD1	LEU	A	49	-13.000	27.286	53.753	1.00	35.00
	ATOM	371	CD2	LEU	A	49	-11.135	27.785	52.181	1.00	38.84
	ATOM	372	N	ARG	A	50	-16.287	27.411	51.998	1.00	40.21
	ATOM	373	CA	ARG	A	50	-17.242	28.417	51.525	1.00	41.40
60	ATOM	374	C	ARG	A	50	-16.907	29.859	51.901	1.00	47.29
	ATOM	375	O	ARG	A	50	-17.364	30.801	51.263	1.00	47.10
	ATOM	376	CB	ARG	A	50	-18.644	28.046	51.980	1.00	38.23
	ATOM	377	CG	ARG	A	50	-18.911	26.547	51.811	1.00	52.44
	ATOM	378	CD	ARG	A	50	-20.385	26.171	51.839	1.00	58.37

	ATOM	379	NE	ARG	A	50	-20.835	25.461	50.643	1.00	80.87
	ATOM	380	CZ	ARG	A	50	-21.951	24.727	50.592	1.00	100.00
	ATOM	381	NH1	ARG	A	50	-22.750	24.575	51.652	1.00	100.00
	ATOM	382	NH2	ARG	A	50	-22.272	24.127	49.446	1.00	65.83
5	ATOM	383	N	SER	A	51	-16.102	30.024	52.945	1.00	43.64
	ATOM	384	CA	SER	A	51	-15.714	31.334	53.418	1.00	41.14
	ATOM	385	C	SER	A	51	-14.454	31.283	54.259	1.00	44.29
	ATOM	386	O	SER	A	51	-14.253	30.319	55.016	1.00	46.38
10	ATOM	387	CB	SER	A	51	-16.821	31.863	54.321	1.00	45.40
	ATOM	388	OG	SER	A	51	-16.862	31.143	55.556	1.00	46.27
	ATOM	389	N	LEU	A	52	-13.623	32.330	54.156	1.00	36.51
	ATOM	390	CA	LEU	A	52	-12.418	32.411	54.964	1.00	36.39
	ATOM	391	C	LEU	A	52	-12.369	33.667	55.852	1.00	42.80
	ATOM	392	O	LEU	A	52	-13.113	34.644	55.647	1.00	40.92
15	ATOM	393	CB	LEU	A	52	-11.103	32.143	54.203	1.00	35.84
	ATOM	394	CG	LEU	A	52	-10.729	33.115	53.095	1.00	39.41
	ATOM	395	CD1	LEU	A	52	-11.745	33.042	51.994	1.00	41.33
	ATOM	396	CD2	LEU	A	52	-10.624	34.538	53.605	1.00	38.19
20	ATOM	397	N	VAL	A	53	-11.491	33.659	56.859	1.00	37.98
	ATOM	398	CA	VAL	A	53	-11.331	34.834	57.737	1.00	34.43
	ATOM	399	C	VAL	A	53	-9.933	35.384	57.550	1.00	31.66
	ATOM	400	O	VAL	A	53	-8.975	34.606	57.511	1.00	28.02
	ATOM	401	CB	VAL	A	53	-11.601	34.597	59.226	1.00	37.95
25	ATOM	402	CG1	VAL	A	53	-11.580	35.929	59.989	1.00	37.38
	ATOM	403	CG2	VAL	A	53	-12.946	33.922	59.419	1.00	37.84
	ATOM	404	N	LEU	A	54	-9.829	36.705	57.418	1.00	23.95
	ATOM	405	CA	LEU	A	54	-8.558	37.365	57.270	1.00	22.89
	ATOM	406	C	LEU	A	54	-8.395	38.285	58.470	1.00	29.33
30	ATOM	407	O	LEU	A	54	-9.388	38.613	59.138	1.00	25.65
	ATOM	408	CB	LEU	A	54	-8.515	38.242	56.019	1.00	23.57
	ATOM	409	CG	LEU	A	54	-8.458	37.469	54.700	1.00	32.01
	ATOM	410	CD1	LEU	A	54	-8.345	38.475	53.541	1.00	31.66
	ATOM	411	CD2	LEU	A	54	-7.271	36.505	54.684	1.00	24.96
35	ATOM	412	N	ASP	A	55	-7.145	38.698	58.732	1.00	28.72
	ATOM	413	CA	ASP	A	55	-6.830	39.616	59.831	1.00	24.54
	ATOM	414	C	ASP	A	55	-6.845	41.043	59.289	1.00	22.50
	ATOM	415	O	ASP	A	55	-6.460	41.312	58.173	1.00	21.41
	ATOM	416	CB	ASP	A	55	-5.446	39.344	60.500	1.00	25.99
40	ATOM	417	CG	ASP	A	55	-5.298	38.132	61.418	1.00	23.16
	ATOM	418	OD1	ASP	A	55	-5.887	37.985	62.470	1.00	27.99
	ATOM	419	OD2	ASP	A	55	-4.408	37.248	60.991	1.00	24.58
	ATOM	420	N	THR	A	56	-7.309	41.977	60.109	1.00	21.37
	ATOM	421	CA	THR	A	56	-7.346	43.373	59.748	1.00	22.34
45	ATOM	422	C	THR	A	56	-7.167	44.196	61.019	1.00	25.71
	ATOM	423	O	THR	A	56	-7.573	43.726	62.088	1.00	26.22
	ATOM	424	CB	THR	A	56	-8.727	43.717	59.133	1.00	34.75
	ATOM	425	OG1	THR	A	56	-9.668	43.936	60.183	1.00	35.02
	ATOM	426	CG2	THR	A	56	-9.210	42.578	58.241	1.00	40.12
50	ATOM	427	N	LYS	A	57	-6.598	45.405	60.918	1.00	20.41
	ATOM	428	CA	LYS	A	57	-6.478	46.239	62.114	1.00	19.63
	ATOM	429	C	LYS	A	57	-6.656	47.686	61.717	1.00	21.21
	ATOM	430	O	LYS	A	57	-5.851	48.222	60.995	1.00	19.18
	ATOM	431	CB	LYS	A	57	-5.182	45.983	62.827	1.00	21.05
55	ATOM	432	CG	LYS	A	57	-5.137	46.424	64.271	1.00	26.38
	ATOM	433	CD	LYS	A	57	-3.713	46.855	64.626	1.00	44.32
	ATOM	434	CE	LYS	A	57	-3.331	46.750	66.099	1.00	61.77
	ATOM	435	NZ	LYS	A	57	-1.996	47.313	66.396	1.00	53.68
	ATOM	436	N	ASP	A	58	-7.739	48.322	62.162	1.00	23.32
60	ATOM	437	CA	ASP	A	58	-7.952	49.707	61.772	1.00	22.42
	ATOM	438	C	ASP	A	58	-7.930	49.875	60.266	1.00	27.00
	ATOM	439	O	ASP	A	58	-7.376	50.808	59.668	1.00	24.72
	ATOM	440	CB	ASP	A	58	-6.971	50.657	62.459	1.00	24.48
	ATOM	441	CG	ASP	A	58	-7.104	50.494	63.928	1.00	36.08
	ATOM	442	OD1	ASP	A	58	-8.187	50.358	64.474	1.00	38.70

	ATOM	443	OD2	ASP	A	58	-5.944	50.459	64.535	1.00	37.78
	ATOM	444	N	LEU	A	59	-8.530	48.936	59.611	1.00	26.57
	ATOM	445	CA	LEU	A	59	-8.545	49.049	58.177	1.00	26.97
5	ATOM	446	C	LEU	A	59	-9.946	49.473	57.707	1.00	30.09
	ATOM	447	O	LEU	A	59	-10.971	49.074	58.245	1.00	28.07
	ATOM	448	CB	LEU	A	59	-8.132	47.698	57.479	1.00	26.65
	ATOM	449	CG	LEU	A	59	-6.639	47.356	57.443	1.00	24.34
	ATOM	450	CD1	LEU	A	59	-6.445	46.049	56.687	1.00	25.03
10	ATOM	451	CD2	LEU	A	59	-5.864	48.443	56.722	1.00	21.60
	ATOM	452	N	THR	A	60	-9.982	50.278	56.673	1.00	29.73
	ATOM	453	CA	THR	A	60	-11.244	50.685	56.091	1.00	30.53
	ATOM	454	C	THR	A	60	-11.433	49.876	54.791	1.00	34.07
	ATOM	455	O	THR	A	60	-10.634	49.978	53.813	1.00	29.18
	ATOM	456	CB	THR	A	60	-11.282	52.198	55.881	1.00	38.77
15	ATOM	457	OG1	THR	A	60	-11.898	52.759	57.020	1.00	55.62
	ATOM	458	CG2	THR	A	60	-12.086	52.528	54.635	1.00	42.40
	ATOM	459	N	ILE	A	61	-12.465	49.042	54.808	1.00	30.99
	ATOM	460	CA	ILE	A	61	-12.758	48.181	53.667	1.00	33.20
20	ATOM	461	C	ILE	A	61	-13.821	48.708	52.741	1.00	38.63
	ATOM	462	O	ILE	A	61	-14.987	48.694	53.102	1.00	34.56
	ATOM	463	CB	ILE	A	61	-13.230	46.809	54.087	1.00	37.17
	ATOM	464	CG1	ILE	A	61	-12.407	46.229	55.252	1.00	37.33
	ATOM	465	CG2	ILE	A	61	-13.229	45.905	52.850	1.00	39.90
25	ATOM	466	CD1	ILE	A	61	-10.929	46.003	54.937	1.00	41.79
	ATOM	467	N	GLU	A	62	-13.407	49.117	51.548	1.00	42.13
	ATOM	468	CA	GLU	A	62	-14.330	49.624	50.543	1.00	45.12
	ATOM	469	C	GLU	A	62	-15.208	48.498	49.976	1.00	48.64
	ATOM	470	O	GLU	A	62	-16.442	48.537	49.984	1.00	49.46
30	ATOM	471	CB	GLU	A	62	-13.550	50.305	49.397	1.00	47.88
	ATOM	472	CG	GLU	A	62	-14.390	51.345	48.620	1.00	73.90
	ATOM	473	CD	GLU	A	62	-15.062	50.839	47.363	1.00	100.00
	ATOM	474	OE1	GLU	A	62	-16.062	50.129	47.371	1.00	100.00
	ATOM	475	OE2	GLU	A	62	-14.492	51.296	46.267	1.00	100.00
35	ATOM	476	N	LYS	A	63	-14.551	47.459	49.483	1.00	40.80
	ATOM	477	CA	LYS	A	63	-15.283	46.342	48.931	1.00	36.23
	ATOM	478	C	LYS	A	63	-14.377	45.153	48.678	1.00	34.27
	ATOM	479	O	LYS	A	63	-13.167	45.306	48.512	1.00	29.28
	ATOM	480	CB	LYS	A	63	-15.891	46.760	47.601	1.00	32.16
40	ATOM	481	CG	LYS	A	63	-14.816	47.067	46.573	1.00	22.38
	ATOM	482	CD	LYS	A	63	-15.373	47.148	45.162	1.00	32.02
	ATOM	483	CE	LYS	A	63	-14.778	48.257	44.308	1.00	33.99
	ATOM	484	NZ	LYS	A	63	-13.723	47.814	43.365	1.00	52.00
	ATOM	485	N	VAL	A	64	-15.001	43.985	48.614	1.00	36.16
45	ATOM	486	CA	VAL	A	64	-14.292	42.751	48.306	1.00	39.33
	ATOM	487	C	VAL	A	64	-14.792	42.157	46.993	1.00	43.15
	ATOM	488	O	VAL	A	64	-15.971	41.822	46.859	1.00	38.90
	ATOM	489	CB	VAL	A	64	-14.401	41.692	49.370	1.00	42.66
	ATOM	490	CG1	VAL	A	64	-13.465	40.566	48.928	1.00	42.11
50	ATOM	491	CG2	VAL	A	64	-14.028	42.276	50.730	1.00	40.96
	ATOM	492	N	VAL	A	65	-13.892	42.023	46.036	1.00	40.44
	ATOM	493	CA	VAL	A	65	-14.287	41.505	44.739	1.00	37.94
	ATOM	494	C	VAL	A	65	-13.708	40.162	44.350	1.00	35.48
	ATOM	495	O	VAL	A	65	-12.511	39.915	44.474	1.00	31.12
55	ATOM	496	CB	VAL	A	65	-14.047	42.540	43.647	1.00	39.44
	ATOM	497	CG1	VAL	A	65	-14.238	41.899	42.287	1.00	38.78
	ATOM	498	CG2	VAL	A	65	-15.024	43.692	43.844	1.00	38.69
	ATOM	499	N	ILE	A	66	-14.599	39.316	43.847	1.00	32.12
	ATOM	500	CA	ILE	A	66	-14.223	38.010	43.372	1.00	31.54
60	ATOM	501	C	ILE	A	66	-14.825	37.784	41.993	1.00	37.42
	ATOM	502	O	ILE	A	66	-16.033	37.896	41.794	1.00	34.45
	ATOM	503	CB	ILE	A	66	-14.602	36.884	44.313	1.00	32.82
	ATOM	504	CG1	ILE	A	66	-13.945	37.071	45.664	1.00	30.69
	ATOM	505	CG2	ILE	A	66	-14.117	35.581	43.703	1.00	32.94
	ATOM	506	CD1	ILE	A	66	-14.478	36.125	46.731	1.00	25.31

	ATOM	507	N	ASN	A	67	-13.968	37.498	41.027	1.00	38.89
	ATOM	508	CA	ASN	A	67	-14.426	37.278	39.668	1.00	39.33
	ATOM	509	C	ASN	A	67	-15.373	38.366	39.223	1.00	42.51
5	ATOM	510	O	ASN	A	67	-16.525	38.092	38.906	1.00	39.37
	ATOM	511	CB	ASN	A	67	-15.095	35.904	39.501	1.00	35.20
	ATOM	512	CG	ASN	A	67	-14.141	34.765	39.862	1.00	61.24
	ATOM	513	OD1	ASN	A	67	-12.900	34.842	39.669	1.00	47.44
	ATOM	514	ND2	ASN	A	67	-14.717	33.706	40.421	1.00	42.22
10	ATOM	515	N	GLY	A	68	-14.848	39.590	39.237	1.00	39.48
	ATOM	516	CA	GLY	A	68	-15.527	40.809	38.826	1.00	37.68
	ATOM	517	C	GLY	A	68	-16.763	41.167	39.612	1.00	39.81
	ATOM	518	O	GLY	A	68	-17.380	42.197	39.398	1.00	43.86
	ATOM	519	N	GLN	A	69	-17.173	40.333	40.513	1.00	33.09
15	ATOM	520	CA	GLN	A	69	-18.351	40.732	41.230	1.00	34.40
	ATOM	521	C	GLN	A	69	-17.958	41.090	42.626	1.00	47.27
	ATOM	522	O	GLN	A	69	-16.841	40.790	43.059	1.00	49.22
	ATOM	523	CB	GLN	A	69	-19.416	39.624	41.285	1.00	36.28
	ATOM	524	CG	GLN	A	69	-19.908	39.174	39.893	1.00	42.32
20	ATOM	525	CD	GLN	A	69	-20.467	40.321	39.111	1.00	54.27
	ATOM	526	OE1	GLN	A	69	-19.968	40.635	38.025	1.00	50.67
	ATOM	527	NE2	GLN	A	69	-21.462	40.989	39.696	1.00	59.09
	ATOM	528	N	GLU	A	70	-18.898	41.715	43.318	1.00	45.54
	ATOM	529	CA	GLU	A	70	-18.697	42.105	44.682	1.00	43.70
25	ATOM	530	C	GLU	A	70	-19.236	40.986	45.548	1.00	50.02
	ATOM	531	O	GLU	A	70	-20.200	40.332	45.162	1.00	55.78
	ATOM	532	CB	GLU	A	70	-19.351	43.459	44.985	1.00	43.37
	ATOM	533	CG	GLU	A	70	-18.528	44.659	44.476	1.00	45.21
	ATOM	534	CD	GLU	A	70	-19.093	45.975	44.964	1.00	80.18
30	ATOM	535	OE1	GLU	A	70	-19.937	46.064	45.861	1.00	51.66
	ATOM	536	OE2	GLU	A	70	-18.594	47.005	44.319	1.00	79.05
	ATOM	537	N	VAL	A	71	-18.611	40.735	46.695	1.00	37.89
	ATOM	538	CA	VAL	A	71	-19.067	39.666	47.551	1.00	33.11
	ATOM	539	C	VAL	A	71	-19.420	40.129	48.963	1.00	35.14
35	ATOM	540	O	VAL	A	71	-19.165	41.257	49.380	1.00	36.32
	ATOM	541	CB	VAL	A	71	-18.147	38.422	47.497	1.00	33.37
	ATOM	542	CG1	VAL	A	71	-17.772	38.119	46.050	1.00	31.13
	ATOM	543	CG2	VAL	A	71	-16.866	38.594	48.326	1.00	31.47
	ATOM	544	N	LYS	A	72	-20.016	39.247	49.696	1.00	31.08
40	ATOM	545	CA	LYS	A	72	-20.385	39.549	51.037	1.00	34.55
	ATOM	546	C	LYS	A	72	-19.155	39.360	51.922	1.00	46.45
	ATOM	547	O	LYS	A	72	-18.344	38.455	51.678	1.00	44.93
	ATOM	548	CB	LYS	A	72	-21.484	38.586	51.447	1.00	37.84
	ATOM	549	CG	LYS	A	72	-22.553	39.153	52.362	1.00	60.35
	ATOM	550	CD	LYS	A	72	-22.630	38.370	53.660	1.00	78.18
45	ATOM	551	CE	LYS	A	72	-21.389	38.589	54.500	1.00	92.99
	ATOM	552	NZ	LYS	A	72	-20.860	39.935	54.295	1.00	100.00
	ATOM	553	N	TYR	A	73	-19.051	40.242	52.930	1.00	45.41
	ATOM	554	CA	TYR	A	73	-18.006	40.276	53.941	1.00	45.13
50	ATOM	555	C	TYR	A	73	-18.474	41.017	55.167	1.00	47.06
	ATOM	556	O	TYR	A	73	-19.231	41.979	55.089	1.00	45.05
	ATOM	557	CB	TYR	A	73	-16.720	40.932	53.488	1.00	44.74
	ATOM	558	CG	TYR	A	73	-16.753	42.438	53.504	1.00	47.77
	ATOM	559	CD1	TYR	A	73	-16.507	43.169	54.674	1.00	50.00
55	ATOM	560	CD2	TYR	A	73	-17.005	43.133	52.306	1.00	49.34
	ATOM	561	CE1	TYR	A	73	-16.519	44.565	54.662	1.00	52.06
	ATOM	562	CE2	TYR	A	73	-16.967	44.529	52.284	1.00	50.56
	ATOM	563	CZ	TYR	A	73	-16.684	45.235	53.452	1.00	60.67
	ATOM	564	OH	TYR	A	73	-16.859	46.597	53.418	1.00	66.04
60	ATOM	565	N	ALA	A	74	-17.993	40.557	56.289	1.00	40.33
	ATOM	566	CA	ALA	A	74	-18.323	41.138	57.545	1.00	39.85
	ATOM	567	C	ALA	A	74	-17.068	41.281	58.412	1.00	47.89
	ATOM	568	O	ALA	A	74	-16.147	40.464	58.346	1.00	46.81
	ATOM	569	CB	ALA	A	74	-19.346	40.262	58.237	1.00	39.87
	ATOM	570	N	LEU	A	75	-17.055	42.339	59.227	1.00	42.79

	ATOM	571	CA	LEU	A	75	-15.980	42.650	60.148	1.00	38.94
	ATOM	572	C	LEU	A	75	-16.416	42.342	61.561	1.00	44.65
	ATOM	573	O	LEU	A	75	-17.388	42.895	62.068	1.00	48.50
	ATOM	574	CB	LEU	A	75	-15.667	44.141	60.115	1.00	37.30
5	ATOM	575	CG	LEU	A	75	-14.899	44.572	58.899	1.00	44.06
	ATOM	576	CD1	LEU	A	75	-14.476	46.031	59.085	1.00	47.51
	ATOM	577	CD2	LEU	A	75	-13.691	43.666	58.677	1.00	46.54
	ATOM	578	N	GLY	A	76	-15.718	41.474	62.242	1.00	39.16
	ATOM	579	CA	GLY	A	76	-16.145	41.228	63.597	1.00	36.77
10	ATOM	580	C	GLY	A	76	-15.652	42.360	64.461	1.00	31.43
	ATOM	581	O	GLY	A	76	-14.997	43.290	63.969	1.00	26.07
	ATOM	582	N	GLU	A	77	-15.973	42.281	65.736	1.00	32.78
	ATOM	583	CA	GLU	A	77	-15.539	43.318	66.645	1.00	34.78
	ATOM	584	C	GLU	A	77	-14.050	43.214	66.886	1.00	38.63
15	ATOM	585	O	GLU	A	77	-13.431	42.176	66.641	1.00	34.85
	ATOM	586	CB	GLU	A	77	-16.337	43.338	67.966	1.00	37.18
	ATOM	587	CG	GLU	A	77	-16.506	41.956	68.643	1.00	56.65
	ATOM	588	CD	GLU	A	77	-16.316	41.990	70.151	1.00	100.00
	ATOM	589	OE1	GLU	A	77	-16.789	42.859	70.877	1.00	100.00
20	ATOM	590	OE2	GLU	A	77	-15.603	40.975	70.597	1.00	100.00
	ATOM	591	N	ARG	A	78	-13.483	44.312	67.343	1.00	37.73
	ATOM	592	CA	ARG	A	78	-12.068	44.336	67.624	1.00	37.11
	ATOM	593	C	ARG	A	78	-11.709	43.545	68.889	1.00	39.61
	ATOM	594	O	ARG	A	78	-12.422	43.549	69.906	1.00	36.40
25	ATOM	595	CB	ARG	A	78	-11.522	45.744	67.693	1.00	33.62
	ATOM	596	CG	ARG	A	78	-9.991	45.807	67.699	1.00	34.93
	ATOM	597	CD	ARG	A	78	-9.516	47.207	68.040	1.00	32.03
	ATOM	598	NE	ARG	A	78	-8.083	47.397	68.058	1.00	33.71
	ATOM	599	CZ	ARG	A	78	-7.459	48.239	67.241	1.00	53.03
30	ATOM	600	NH1	ARG	A	78	-8.114	48.941	66.314	1.00	39.56
	ATOM	601	NH2	ARG	A	78	-6.139	48.361	67.337	1.00	53.05
	ATOM	602	N	GLN	A	79	-10.576	42.842	68.795	1.00	33.34
	ATOM	603	CA	GLN	A	79	-10.044	42.052	69.881	1.00	32.25
	ATOM	604	C	GLN	A	79	-8.708	42.662	70.221	1.00	36.49
35	ATOM	605	O	GLN	A	79	-7.651	42.164	69.834	1.00	37.41
	ATOM	606	CB	GLN	A	79	-9.906	40.580	69.472	1.00	31.80
	ATOM	607	CG	GLN	A	79	-11.263	39.972	69.092	1.00	31.70
	ATOM	608	CD	GLN	A	79	-11.143	38.511	68.713	1.00	62.24
	ATOM	609	OE1	GLN	A	79	-10.234	37.819	69.182	1.00	64.13
40	ATOM	610	NE2	GLN	A	79	-12.046	38.033	67.862	1.00	56.77
	ATOM	611	N	SER	A	80	-8.787	43.794	70.893	1.00	30.40
	ATOM	612	CA	SER	A	80	-7.617	44.551	71.284	1.00	27.48
	ATOM	613	C	SER	A	80	-6.535	44.592	70.257	1.00	29.91
	ATOM	614	O	SER	A	80	-6.758	45.054	69.140	1.00	28.75
45	ATOM	615	CB	SER	A	80	-7.066	44.252	72.655	1.00	27.52
	ATOM	616	OG	SER	A	80	-7.173	42.874	72.863	1.00	44.76
	ATOM	617	N	TYR	A	81	-5.350	44.133	70.671	1.00	27.38
	ATOM	618	CA	TYR	A	81	-4.162	44.180	69.820	1.00	25.29
	ATOM	619	C	TYR	A	81	-4.196	43.286	68.604	1.00	23.60
50	ATOM	620	O	TYR	A	81	-3.389	43.435	67.710	1.00	26.12
	ATOM	621	CB	TYR	A	81	-2.861	43.992	70.632	1.00	23.78
	ATOM	622	CG	TYR	A	81	-2.849	42.621	71.190	1.00	21.01
	ATOM	623	CD1	TYR	A	81	-3.374	42.361	72.450	1.00	20.45
	ATOM	624	CD2	TYR	A	81	-2.387	41.569	70.406	1.00	23.13
55	ATOM	625	CE1	TYR	A	81	-3.402	41.064	72.948	1.00	18.45
	ATOM	626	CE2	TYR	A	81	-2.426	40.263	70.885	1.00	24.91
	ATOM	627	CZ	TYR	A	81	-2.929	40.017	72.162	1.00	26.97
	ATOM	628	OH	TYR	A	81	-2.960	38.731	72.652	1.00	35.08
	ATOM	629	N	LYS	A	82	-5.125	42.370	68.568	1.00	19.77
60	ATOM	630	CA	LYS	A	82	-5.225	41.448	67.433	1.00	19.65
	ATOM	631	C	LYS	A	82	-5.948	42.036	66.232	1.00	26.75
	ATOM	632	O	LYS	A	82	-5.821	41.545	65.107	1.00	26.09
	ATOM	633	CB	LYS	A	82	-5.929	40.217	67.888	1.00	19.96
	ATOM	634	CG	LYS	A	82	-5.039	39.427	68.808	1.00	39.72



	ATOM	635	CD	LYS	A	82	-5.610	38.058	69.103	1.00	45.35
	ATOM	636	CE	LYS	A	82	-5.868	37.809	70.577	1.00	52.66
	ATOM	637	NZ	LYS	A	82	-6.016	36.375	70.879	1.00	51.38
5	ATOM	638	N	GLY	A	83	-6.698	43.114	66.482	1.00	25.62
	ATOM	639	CA	GLY	A	83	-7.465	43.786	65.441	1.00	24.64
	ATOM	640	C	GLY	A	83	-8.857	43.145	65.324	1.00	26.15
	ATOM	641	O	GLY	A	83	-9.348	42.515	66.255	1.00	24.12
	ATOM	642	N	SER	A	84	-9.463	43.273	64.136	1.00	27.22
10	ATOM	643	CA	SER	A	84	-10.806	42.770	63.829	1.00	27.17
	ATOM	644	C	SER	A	84	-10.815	41.744	62.720	1.00	29.72
	ATOM	645	O	SER	A	84	-10.237	41.933	61.649	1.00	30.39
	ATOM	646	CB	SER	A	84	-11.708	43.929	63.377	1.00	31.94
	ATOM	647	OG	SER	A	84	-11.719	44.976	64.344	1.00	42.05
15	ATOM	648	N	PRO	A	85	-11.513	40.667	62.979	1.00	24.61
	ATOM	649	CA	PRO	A	85	-11.640	39.590	62.017	1.00	25.06
	ATOM	650	C	PRO	A	85	-12.480	40.005	60.819	1.00	33.19
	ATOM	651	O	PRO	A	85	-13.536	40.622	60.995	1.00	31.19
	ATOM	652	CB	PRO	A	85	-12.404	38.469	62.736	1.00	24.61
20	ATOM	653	CG	PRO	A	85	-12.959	39.049	64.014	1.00	30.62
	ATOM	654	CD	PRO	A	85	-12.314	40.423	64.199	1.00	26.23
	ATOM	655	N	MET	A	86	-12.019	39.632	59.623	1.00	28.27
	ATOM	656	CA	MET	A	86	-12.754	39.924	58.411	1.00	27.27
	ATOM	657	C	MET	A	86	-13.227	38.650	57.699	1.00	32.93
25	ATOM	658	O	MET	A	86	-12.438	37.997	57.038	1.00	27.77
	ATOM	659	CB	MET	A	86	-11.930	40.743	57.451	1.00	27.52
	ATOM	660	CG	MET	A	86	-12.756	41.222	56.274	1.00	30.43
	ATOM	661	SD	MET	A	86	-11.679	41.978	55.050	1.00	37.30
	ATOM	662	CE	MET	A	86	-12.815	42.248	53.681	1.00	37.61
30	ATOM	663	N	GLU	A	87	-14.507	38.295	57.832	1.00	34.14
	ATOM	664	CA	GLU	A	87	-15.060	37.093	57.184	1.00	36.06
	ATOM	665	C	GLU	A	87	-15.538	37.367	55.766	1.00	39.45
	ATOM	666	O	GLU	A	87	-16.366	38.250	55.586	1.00	41.63
	ATOM	667	CB	GLU	A	87	-16.211	36.499	58.003	1.00	37.41
35	ATOM	668	CG	GLU	A	87	-16.540	35.036	57.655	1.00	43.37
	ATOM	669	CD	GLU	A	87	-17.445	34.371	58.657	1.00	60.02
	ATOM	670	OE1	GLU	A	87	-18.629	34.637	58.785	1.00	83.59
	ATOM	671	OE2	GLU	A	87	-16.827	33.467	59.375	1.00	74.01
40	ATOM	672	N	ILE	A	88	-15.000	36.608	54.788	1.00	34.85
	ATOM	673	CA	ILE	A	88	-15.343	36.698	53.359	1.00	33.18
	ATOM	674	C	ILE	A	88	-16.170	35.489	52.896	1.00	42.28
	ATOM	675	O	ILE	A	88	-15.895	34.352	53.254	1.00	43.61
	ATOM	676	CB	ILE	A	88	-14.122	36.878	52.475	1.00	33.03
	ATOM	677	CG1	ILE	A	88	-13.251	38.003	53.020	1.00	31.03
45	ATOM	678	CG2	ILE	A	88	-14.525	37.171	51.035	1.00	31.15
	ATOM	679	CD1	ILE	A	88	-12.088	38.331	52.096	1.00	33.21
	ATOM	680	N	SER	A	89	-17.222	35.723	52.116	1.00	41.90
	ATOM	681	CA	SER	A	89	-18.072	34.635	51.633	1.00	40.20
	ATOM	682	C	SER	A	89	-17.689	34.229	50.234	1.00	43.89
50	ATOM	683	O	SER	A	89	-17.731	35.037	49.296	1.00	40.79
	ATOM	684	CB	SER	A	89	-19.557	34.959	51.685	1.00	43.23
	ATOM	685	OG	SER	A	89	-20.042	34.675	52.986	1.00	57.92
	ATOM	686	N	LEU	A	90	-17.298	32.967	50.099	1.00	41.94
	ATOM	687	CA	LEU	A	90	-16.945	32.481	48.793	1.00	41.32
55	ATOM	688	C	LEU	A	90	-18.258	32.175	48.106	1.00	41.86
	ATOM	689	O	LEU	A	90	-19.186	31.608	48.692	1.00	41.35
	ATOM	690	CB	LEU	A	90	-16.014	31.252	48.856	1.00	41.25
	ATOM	691	CG	LEU	A	90	-14.827	31.484	49.781	1.00	43.31
	ATOM	692	CD1	LEU	A	90	-14.050	30.182	50.020	1.00	40.39
60	ATOM	693	CD2	LEU	A	90	-13.940	32.569	49.162	1.00	40.88
	ATOM	694	N	PRO	A	91	-18.337	32.612	46.887	1.00	40.52
	ATOM	695	CA	PRO	A	91	-19.516	32.434	46.056	1.00	43.11
	ATOM	696	C	PRO	A	91	-19.516	31.058	45.401	1.00	51.36
	ATOM	697	O	PRO	A	91	-20.363	30.753	44.576	1.00	52.06
	ATOM	698	CB	PRO	A	91	-19.359	33.470	44.942	1.00	43.83

	ATOM	699	CG	PRO	A	91	-17.883	33.867	44.915	1.00	48.09
	ATOM	700	CD	PRO	A	91	-17.268	33.373	46.217	1.00	41.44
	ATOM	701	N	ILE	A	92	-18.516	30.261	45.767	1.00	50.02
5	ATOM	702	CA	ILE	A	92	-18.325	28.924	45.259	1.00	50.50
	ATOM	703	C	ILE	A	92	-17.525	28.128	46.242	1.00	47.69
	ATOM	704	O	ILE	A	92	-16.416	28.497	46.564	1.00	46.80
	ATOM	705	CB	ILE	A	92	-17.492	28.924	44.001	1.00	55.84
	ATOM	706	CG1	ILE	A	92	-18.372	29.135	42.791	1.00	58.16
10	ATOM	707	CG2	ILE	A	92	-16.776	27.584	43.884	1.00	59.08
	ATOM	708	CD1	ILE	A	92	-17.568	29.038	41.493	1.00	83.51
	ATOM	709	N	ALA	A	93	-18.047	27.023	46.683	1.00	40.78
	ATOM	710	CA	ALA	A	93	-17.280	26.257	47.599	1.00	38.66
	ATOM	711	C	ALA	A	93	-16.066	25.735	46.892	1.00	45.36
	ATOM	712	O	ALA	A	93	-16.141	25.391	45.720	1.00	47.87
15	ATOM	713	CB	ALA	A	93	-18.114	25.149	48.205	1.00	38.35
	ATOM	714	N	LEU	A	94	-14.956	25.716	47.630	1.00	42.52
	ATOM	715	CA	LEU	A	94	-13.652	25.233	47.181	1.00	41.33
	ATOM	716	C	LEU	A	94	-13.330	23.900	47.814	1.00	46.96
20	ATOM	717	O	LEU	A	94	-13.719	23.618	48.948	1.00	45.93
	ATOM	718	CB	LEU	A	94	-12.515	26.182	47.571	1.00	39.52
	ATOM	719	CG	LEU	A	94	-12.515	27.449	46.748	1.00	44.05
	ATOM	720	CD1	LEU	A	94	-11.153	28.133	46.829	1.00	44.88
	ATOM	721	CD2	LEU	A	94	-12.843	27.115	45.305	1.00	45.42
25	ATOM	722	N	SER	A	95	-12.604	23.083	47.074	1.00	44.42
	ATOM	723	CA	SER	A	95	-12.221	21.807	47.591	1.00	43.44
	ATOM	724	C	SER	A	95	-10.728	21.776	47.719	1.00	36.96
	ATOM	725	O	SER	A	95	-10.038	22.639	47.187	1.00	33.14
	ATOM	726	CB	SER	A	95	-12.739	20.704	46.696	1.00	51.13
30	ATOM	727	OG	SER	A	95	-14.083	20.459	47.074	1.00	60.97
	ATOM	728	N	LYS	A	96	-10.240	20.779	48.407	1.00	33.03
	ATOM	729	CA	LYS	A	96	-8.818	20.694	48.557	1.00	33.15
	ATOM	730	C	LYS	A	96	-8.122	21.204	47.321	1.00	37.16
	ATOM	731	O	LYS	A	96	-8.514	20.922	46.188	1.00	38.12
35	ATOM	732	CB	LYS	A	96	-8.348	19.290	48.861	1.00	34.42
	ATOM	733	CG	LYS	A	96	-8.583	18.910	50.298	1.00	57.96
	ATOM	734	CD	LYS	A	96	-8.422	17.423	50.553	1.00	73.54
	ATOM	735	CE	LYS	A	96	-9.475	16.882	51.512	1.00	94.46
	ATOM	736	NZ	LYS	A	96	-9.837	15.475	51.246	1.00	100.00
40	ATOM	737	N	ASN	A	97	-7.069	21.958	47.573	1.00	29.05
	ATOM	738	CA	ASN	A	97	-6.213	22.528	46.568	1.00	25.85
	ATOM	739	C	ASN	A	97	-6.783	23.479	45.576	1.00	31.84
	ATOM	740	O	ASN	A	97	-6.064	23.909	44.682	1.00	33.02
	ATOM	741	CB	ASN	A	97	-5.166	21.572	46.006	1.00	33.23
45	ATOM	742	CG	ASN	A	97	-4.289	21.018	47.135	1.00	55.19
	ATOM	743	OD1	ASN	A	97	-4.009	19.823	47.186	1.00	56.15
	ATOM	744	ND2	ASN	A	97	-3.873	21.867	48.073	1.00	43.36
	ATOM	745	N	GLN	A	98	-8.053	23.835	45.730	1.00	32.99
	ATOM	746	CA	GLN	A	98	-8.611	24.798	44.792	1.00	35.56
50	ATOM	747	C	GLN	A	98	-8.259	26.220	45.204	1.00	40.34
	ATOM	748	O	GLN	A	98	-8.208	26.541	46.381	1.00	37.21
	ATOM	749	CB	GLN	A	98	-10.111	24.610	44.555	1.00	38.17
	ATOM	750	CG	GLN	A	98	-10.446	23.220	43.974	1.00	47.37
	ATOM	751	CD	GLN	A	98	-11.869	23.144	43.480	1.00	68.06
55	ATOM	752	OE1	GLN	A	98	-12.676	22.343	43.981	1.00	68.25
	ATOM	753	NE2	GLN	A	98	-12.184	24.014	42.527	1.00	58.46
	ATOM	754	N	GLU	A	99	-8.007	27.049	44.206	1.00	42.57
	ATOM	755	CA	GLU	A	99	-7.630	28.442	44.380	1.00	43.65
	ATOM	756	C	GLU	A	99	-8.649	29.427	43.778	1.00	47.15
60	ATOM	757	O	GLU	A	99	-9.262	29.166	42.734	1.00	44.38
	ATOM	758	CB	GLU	A	99	-6.229	28.688	43.745	1.00	44.65
	ATOM	759	CG	GLU	A	99	-5.210	27.549	44.026	1.00	62.98
	ATOM	760	CD	GLU	A	99	-3.804	27.766	43.496	1.00	92.15
	ATOM	761	OE1	GLU	A	99	-3.299	28.867	43.338	1.00	100.00
	ATOM	762	OE2	GLU	A	99	-3.191	26.625	43.252	1.00	78.70

	ATOM	763	N	ILE	A	100	-8.801	30.565	44.468	1.00	41.83
	ATOM	764	CA	ILE	A	100	-9.632	31.698	44.080	1.00	38.88
	ATOM	765	C	ILE	A	100	-8.784	32.895	44.373	1.00	43.54
5	ATOM	766	O	ILE	A	100	-7.812	32.830	45.135	1.00	42.91
	ATOM	767	CB	ILE	A	100	-10.879	31.971	44.904	1.00	42.18
	ATOM	768	CG1	ILE	A	100	-10.849	31.355	46.271	1.00	47.13
	ATOM	769	CG2	ILE	A	100	-12.225	31.875	44.204	1.00	41.40
	ATOM	770	CD1	ILE	A	100	-10.493	32.395	47.331	1.00	74.72
10	ATOM	771	N	VAL	A	101	-9.156	34.001	43.784	1.00	39.29
	ATOM	772	CA	VAL	A	101	-8.461	35.229	44.067	1.00	37.27
	ATOM	773	C	VAL	A	101	-9.435	36.255	44.626	1.00	39.62
	ATOM	774	O	VAL	A	101	-10.516	36.464	44.098	1.00	38.28
	ATOM	775	CB	VAL	A	101	-7.425	35.723	43.080	1.00	36.91
15	ATOM	776	CG1	VAL	A	101	-7.497	34.980	41.770	1.00	34.64
	ATOM	777	CG2	VAL	A	101	-7.482	37.237	42.939	1.00	35.34
	ATOM	778	N	ILE	A	102	-9.078	36.828	45.749	1.00	31.68
	ATOM	779	CA	ILE	A	102	-9.924	37.777	46.403	1.00	28.22
	ATOM	780	C	ILE	A	102	-9.328	39.135	46.284	1.00	31.14
20	ATOM	781	O	ILE	A	102	-8.173	39.344	46.618	1.00	31.20
	ATOM	782	CB	ILE	A	102	-10.086	37.348	47.841	1.00	30.22
	ATOM	783	CG1	ILE	A	102	-10.432	35.863	47.821	1.00	30.27
	ATOM	784	CG2	ILE	A	102	-11.214	38.112	48.495	1.00	30.53
	ATOM	785	CD1	ILE	A	102	-10.807	35.275	49.187	1.00	36.83
25	ATOM	786	N	GLU	A	103	-10.087	40.073	45.761	1.00	26.48
	ATOM	787	CA	GLU	A	103	-9.510	41.390	45.655	1.00	30.38
	ATOM	788	C	GLU	A	103	-10.196	42.340	46.596	1.00	38.06
	ATOM	789	O	GLU	A	103	-11.400	42.583	46.488	1.00	39.31
	ATOM	790	CB	GLU	A	103	-9.496	41.944	44.256	1.00	31.96
30	ATOM	791	CG	GLU	A	103	-9.063	43.403	44.237	1.00	41.76
	ATOM	792	CD	GLU	A	103	-9.594	44.045	43.003	1.00	80.28
	ATOM	793	OE1	GLU	A	103	-10.653	44.658	42.976	1.00	97.93
	ATOM	794	OE2	GLU	A	103	-8.842	43.798	41.957	1.00	70.69
	ATOM	795	N	ILE	A	104	-9.409	42.831	47.536	1.00	33.55
35	ATOM	796	CA	ILE	A	104	-9.900	43.716	48.562	1.00	30.57
	ATOM	797	C	ILE	A	104	-9.417	45.121	48.376	1.00	32.37
	ATOM	798	O	ILE	A	104	-8.209	45.395	48.262	1.00	28.32
	ATOM	799	CB	ILE	A	104	-9.522	43.227	49.955	1.00	33.68
	ATOM	800	CG1	ILE	A	104	-9.880	41.763	50.117	1.00	31.76
40	ATOM	801	CG2	ILE	A	104	-10.221	44.054	51.024	1.00	32.15
	ATOM	802	CD1	ILE	A	104	-9.097	41.073	51.227	1.00	34.97
	ATOM	803	N	SER	A	105	-10.433	45.980	48.336	1.00	35.99
	ATOM	804	CA	SER	A	105	-10.304	47.420	48.202	1.00	37.06
	ATOM	805	C	SER	A	105	-10.231	47.965	49.624	1.00	32.66
45	ATOM	806	O	SER	A	105	-11.184	47.854	50.409	1.00	27.10
	ATOM	807	CB	SER	A	105	-11.479	48.007	47.438	1.00	41.57
	ATOM	808	OG	SER	A	105	-11.142	48.056	46.066	1.00	42.85
	ATOM	809	N	PHE	A	106	-9.069	48.495	49.970	1.00	26.79
	ATOM	810	CA	PHE	A	106	-8.932	48.950	51.316	1.00	24.44
50	ATOM	811	C	PHE	A	106	-8.247	50.298	51.442	1.00	27.41
	ATOM	812	O	PHE	A	106	-7.592	50.835	50.512	1.00	23.66
	ATOM	813	CB	PHE	A	106	-8.098	47.870	52.069	1.00	25.82
	ATOM	814	CG	PHE	A	106	-6.659	47.899	51.602	1.00	26.84
	ATOM	815	CD1	PHE	A	106	-6.279	47.176	50.473	1.00	29.09
55	ATOM	816	CD2	PHE	A	106	-5.690	48.683	52.244	1.00	26.96
	ATOM	817	CE1	PHE	A	106	-4.959	47.223	50.019	1.00	30.72
	ATOM	818	CE2	PHE	A	106	-4.371	48.760	51.788	1.00	27.84
	ATOM	819	CZ	PHE	A	106	-4.003	48.008	50.670	1.00	27.74
	ATOM	820	N	GLU	A	107	-8.390	50.814	52.669	1.00	27.81
60	ATOM	821	CA	GLU	A	107	-7.776	52.082	53.054	1.00	30.68
	ATOM	822	C	GLU	A	107	-7.255	52.010	54.493	1.00	30.66
	ATOM	823	O	GLU	A	107	-7.991	51.628	55.409	1.00	32.52
	ATOM	824	CB	GLU	A	107	-8.744	53.268	52.866	1.00	33.19
	ATOM	825	CG	GLU	A	107	-8.059	54.652	52.795	1.00	50.92
	ATOM	826	CD	GLU	A	107	-9.053	55.794	52.621	1.00	75.89

	ATOM	827	OE1	GLU	A	107	-9.430	56.225	51.535	1.00	61.91
	ATOM	828	OE2	GLU	A	107	-9.483	56.292	53.762	1.00	47.17
	ATOM	829	N	THR	A	108	-5.978	52.366	54.682	1.00	26.11
5	ATOM	830	CA	THR	A	108	-5.341	52.325	56.009	1.00	28.04
	ATOM	831	C	THR	A	108	-5.664	53.563	56.790	1.00	32.96
	ATOM	832	O	THR	A	108	-5.881	54.618	56.202	1.00	30.16
	ATOM	833	CB	THR	A	108	-3.787	52.277	55.957	1.00	35.08
	ATOM	834	OG1	THR	A	108	-3.245	53.465	55.378	1.00	29.19
10	ATOM	835	CG2	THR	A	108	-3.254	51.032	55.245	1.00	32.38
	ATOM	836	N	SER	A	109	-5.650	53.417	58.112	1.00	28.09
	ATOM	837	CA	SER	A	109	-5.890	54.508	59.057	1.00	22.39
	ATOM	838	C	SER	A	109	-4.612	55.300	59.248	1.00	26.59
	ATOM	839	O	SER	A	109	-3.497	54.766	59.191	1.00	23.06
15	ATOM	840	CB	SER	A	109	-6.316	53.896	60.386	1.00	23.90
	ATOM	841	OG	SER	A	109	-6.087	54.804	61.448	1.00	27.48
	ATOM	842	N	PRO	A	110	-4.720	56.594	59.495	1.00	28.89
	ATOM	843	CA	PRO	A	110	-3.481	57.312	59.703	1.00	27.31
	ATOM	844	C	PRO	A	110	-2.840	56.838	60.993	1.00	27.91
20	ATOM	845	O	PRO	A	110	-1.651	57.033	61.172	1.00	28.30
	ATOM	846	CB	PRO	A	110	-3.776	58.792	59.689	1.00	28.41
	ATOM	847	CG	PRO	A	110	-5.188	58.921	59.138	1.00	33.97
	ATOM	848	CD	PRO	A	110	-5.820	57.545	59.214	1.00	30.89
	ATOM	849	N	LYS	A	111	-3.640	56.170	61.848	1.00	21.21
25	ATOM	850	CA	LYS	A	111	-3.137	55.620	63.098	1.00	21.20
	ATOM	851	C	LYS	A	111	-2.634	54.163	62.972	1.00	24.12
	ATOM	852	O	LYS	A	111	-2.502	53.476	63.990	1.00	27.31
	ATOM	853	CB	LYS	A	111	-4.188	55.688	64.202	1.00	24.13
	ATOM	854	CG	LYS	A	111	-4.435	57.079	64.786	1.00	44.09
30	ATOM	855	CD	LYS	A	111	-5.146	58.027	63.832	1.00	80.95
	ATOM	856	CE	LYS	A	111	-6.627	57.733	63.614	1.00	100.00
	ATOM	857	NZ	LYS	A	111	-7.193	58.483	62.473	1.00	100.00
	ATOM	858	N	SER	A	112	-2.371	53.669	61.743	1.00	21.95
	ATOM	859	CA	SER	A	112	-1.891	52.278	61.499	1.00	21.09
35	ATOM	860	C	SER	A	112	-0.709	51.968	62.438	1.00	23.23
	ATOM	861	O	SER	A	112	0.236	52.722	62.472	1.00	25.25
	ATOM	862	CB	SER	A	112	-1.467	52.084	60.034	1.00	17.80
	ATOM	863	OG	SER	A	112	-0.821	50.850	59.845	1.00	19.72
	ATOM	864	N	SER	A	113	-0.752	50.884	63.203	1.00	19.64
40	ATOM	865	CA	SER	A	113	0.342	50.587	64.087	1.00	16.68
	ATOM	866	C	SER	A	113	1.539	50.087	63.316	1.00	22.16
	ATOM	867	O	SER	A	113	2.653	50.005	63.822	1.00	21.53
	ATOM	868	CB	SER	A	113	-0.061	49.633	65.183	1.00	20.15
	ATOM	869	OG	SER	A	113	-0.358	48.369	64.663	1.00	23.41
45	ATOM	870	N	ALA	A	114	1.325	49.741	62.059	1.00	21.04
	ATOM	871	CA	ALA	A	114	2.432	49.266	61.221	1.00	19.34
	ATOM	872	C	ALA	A	114	3.212	50.412	60.581	1.00	20.25
	ATOM	873	O	ALA	A	114	4.287	50.210	60.004	1.00	20.84
	ATOM	874	CB	ALA	A	114	1.876	48.455	60.061	1.00	19.26
50	ATOM	875	N	LEU	A	115	2.636	51.614	60.636	1.00	17.27
	ATOM	876	CA	LEU	A	115	3.281	52.725	59.992	1.00	19.18
	ATOM	877	C	LEU	A	115	3.619	53.896	60.870	1.00	22.95
	ATOM	878	O	LEU	A	115	3.042	54.162	61.924	1.00	22.70
	ATOM	879	CB	LEU	A	115	2.418	53.298	58.851	1.00	18.69
55	ATOM	880	CG	LEU	A	115	1.844	52.219	57.960	1.00	24.36
	ATOM	881	CD1	LEU	A	115	0.784	52.871	57.078	1.00	26.30
	ATOM	882	CD2	LEU	A	115	2.954	51.654	57.070	1.00	21.90
	ATOM	883	N	GLN	A	116	4.573	54.621	60.358	1.00	19.91
	ATOM	884	CA	GLN	A	116	4.959	55.857	60.974	1.00	19.64
60	ATOM	885	C	GLN	A	116	5.071	56.896	59.851	1.00	22.36
	ATOM	886	O	GLN	A	116	5.898	56.769	58.943	1.00	21.29
	ATOM	887	CB	GLN	A	116	6.195	55.857	61.891	1.00	21.78
	ATOM	888	CG	GLN	A	116	6.297	57.220	62.637	1.00	28.22
	ATOM	889	CD	GLN	A	116	7.539	57.423	63.481	1.00	33.89
	ATOM	890	OE1	GLN	A	116	8.458	56.585	63.489	1.00	21.37

	ATOM	891	NE2	GLN	A	116	7.569	58.557	64.198	1.00	25.06
	ATOM	892	N	TRP	A	117	4.207	57.898	59.926	1.00	21.50
	ATOM	893	CA	TRP	A	117	4.163	58.982	58.973	1.00	22.21
	ATOM	894	C	TRP	A	117	4.909	60.164	59.588	1.00	24.80
5	ATOM	895	O	TRP	A	117	4.500	60.677	60.633	1.00	24.36
	ATOM	896	CB	TRP	A	117	2.706	59.380	58.730	1.00	20.63
	ATOM	897	CG	TRP	A	117	1.887	58.374	57.979	1.00	21.43
	ATOM	898	CD1	TRP	A	117	1.079	57.439	58.532	1.00	24.14
	ATOM	899	CD2	TRP	A	117	1.736	58.258	56.562	1.00	20.88
10	ATOM	900	NE1	TRP	A	117	0.467	56.706	57.553	1.00	22.57
	ATOM	901	CE2	TRP	A	117	0.832	57.196	56.331	1.00	24.10
	ATOM	902	CE3	TRP	A	117	2.279	58.953	55.467	1.00	23.47
	ATOM	903	CZ2	TRP	A	117	0.450	56.806	55.038	1.00	24.69
	ATOM	904	CZ3	TRP	A	117	1.929	58.563	54.182	1.00	26.53
15	ATOM	905	CH2	TRP	A	117	1.022	57.503	53.974	1.00	27.59
	ATOM	906	N	LEU	A	118	6.000	60.565	58.932	1.00	19.11
	ATOM	907	CA	LEU	A	118	6.864	61.652	59.372	1.00	20.20
	ATOM	908	C	LEU	A	118	6.594	62.936	58.603	1.00	29.18
	ATOM	909	O	LEU	A	118	6.422	62.907	57.379	1.00	29.44
20	ATOM	910	CB	LEU	A	118	8.364	61.287	59.137	1.00	21.47
	ATOM	911	CG	LEU	A	118	8.985	60.284	60.141	1.00	28.52
	ATOM	912	CD1	LEU	A	118	8.137	59.016	60.275	1.00	30.03
	ATOM	913	CD2	LEU	A	118	10.410	59.939	59.716	1.00	27.52
	ATOM	914	N	THR	A	119	6.573	64.076	59.305	1.00	23.98
25	ATOM	915	CA	THR	A	119	6.379	65.362	58.636	1.00	19.34
	ATOM	916	C	THR	A	119	7.776	65.731	58.183	1.00	23.45
	ATOM	917	O	THR	A	119	8.736	65.253	58.783	1.00	24.77
	ATOM	918	CB	THR	A	119	5.910	66.402	59.682	1.00	26.76
	ATOM	919	OG1	THR	A	119	6.915	66.529	60.673	1.00	27.33
30	ATOM	920	CG2	THR	A	119	4.637	65.950	60.390	1.00	28.42
	ATOM	921	N	PRO	A	120	7.933	66.565	57.151	1.00	22.29
	ATOM	922	CA	PRO	A	120	9.255	66.927	56.678	1.00	22.30
	ATOM	923	C	PRO	A	120	10.178	67.419	57.800	1.00	28.55
	ATOM	924	O	PRO	A	120	11.404	67.260	57.754	1.00	27.54
35	ATOM	925	CB	PRO	A	120	9.059	68.024	55.624	1.00	23.05
	ATOM	926	CG	PRO	A	120	7.581	68.150	55.384	1.00	24.12
	ATOM	927	CD	PRO	A	120	6.876	67.282	56.407	1.00	21.87
	ATOM	928	N	GLU	A	121	9.583	68.022	58.822	1.00	28.60
	ATOM	929	CA	GLU	A	121	10.366	68.529	59.937	1.00	31.89
40	ATOM	930	C	GLU	A	121	11.104	67.394	60.658	1.00	37.79
	ATOM	931	O	GLU	A	121	12.205	67.554	61.198	1.00	35.72
	ATOM	932	CB	GLU	A	121	9.442	69.247	60.938	1.00	34.43
	ATOM	933	CG	GLU	A	121	8.757	70.526	60.397	1.00	61.71
	ATOM	934	CD	GLU	A	121	7.773	70.370	59.250	1.00	95.37
45	ATOM	935	OE1	GLU	A	121	6.808	69.624	59.252	1.00	50.70
	ATOM	936	OE2	GLU	A	121	8.033	71.193	58.262	1.00	100.00
	ATOM	937	N	GLN	A	122	10.456	66.228	60.673	1.00	33.10
	ATOM	938	CA	GLN	A	122	11.011	65.066	61.339	1.00	30.63
	ATOM	939	C	GLN	A	122	12.104	64.392	60.538	1.00	33.25
50	ATOM	940	O	GLN	A	122	12.637	63.388	60.962	1.00	33.00
	ATOM	941	CB	GLN	A	122	9.905	64.039	61.637	1.00	30.70
	ATOM	942	CG	GLN	A	122	8.966	64.462	62.774	1.00	23.20
	ATOM	943	CD	GLN	A	122	7.703	63.620	62.818	1.00	27.73
	ATOM	944	OE1	GLN	A	122	6.781	63.798	62.016	1.00	34.90
55	ATOM	945	NE2	GLN	A	122	7.655	62.689	63.757	1.00	30.55
	ATOM	946	N	THR	A	123	12.427	64.912	59.356	1.00	29.61
	ATOM	947	CA	THR	A	123	13.438	64.288	58.495	1.00	27.96
	ATOM	948	C	THR	A	123	14.730	65.030	58.506	1.00	31.63
	ATOM	949	O	THR	A	123	14.831	66.111	59.060	1.00	34.46
60	ATOM	950	CB	THR	A	123	12.966	64.183	57.029	1.00	24.54
	ATOM	951	OG1	THR	A	123	12.855	65.504	56.515	1.00	28.43
	ATOM	952	CG2	THR	A	123	11.594	63.521	56.985	1.00	18.48
	ATOM	953	N	SER	A	124	15.712	64.440	57.870	1.00	24.71
	ATOM	954	CA	SER	A	124	16.980	65.088	57.814	1.00	25.71

	ATOM	955	C	SER A 124	16.886	66.308	56.900	1.00	34.45
	ATOM	956	O	SER A 124	17.399	67.377	57.227	1.00	34.98
	ATOM	957	CB	SER A 124	18.094	64.182	57.317	1.00	25.78
5	ATOM	958	OG	SER A 124	18.268	63.099	58.177	1.00	34.37
	ATOM	959	N	GLY A 125	16.221	66.110	55.756	1.00	32.47
	ATOM	960	CA	GLY A 125	16.042	67.119	54.717	1.00	33.54
	ATOM	961	C	GLY A 125	15.086	68.279	55.024	1.00	38.01
	ATOM	962	O	GLY A 125	15.226	69.371	54.450	1.00	35.01
10	ATOM	963	N	LYS A 126	14.100	68.055	55.893	1.00	32.87
	ATOM	964	CA	LYS A 126	13.181	69.126	56.236	1.00	30.74
	ATOM	965	C	LYS A 126	12.281	69.626	55.101	1.00	34.13
	ATOM	966	O	LYS A 126	11.453	70.517	55.351	1.00	33.10
	ATOM	967	CB	LYS A 126	13.940	70.303	56.823	1.00	31.29
15	ATOM	968	CG	LYS A 126	15.031	69.877	57.790	1.00	34.55
	ATOM	969	CD	LYS A 126	14.459	69.111	58.962	1.00	40.18
	ATOM	970	CE	LYS A 126	15.496	68.661	59.973	1.00	41.28
	ATOM	971	NZ	LYS A 126	14.895	67.775	60.987	1.00	46.79
	ATOM	972	N	GLU A 127	12.436	69.079	53.869	1.00	27.28
20	ATOM	973	CA	GLU A 127	11.617	69.510	52.737	1.00	26.31
	ATOM	974	C	GLU A 127	10.566	68.517	52.300	1.00	35.95
	ATOM	975	O	GLU A 127	9.636	68.879	51.575	1.00	35.05
	ATOM	976	CB	GLU A 127	12.460	69.926	51.535	1.00	27.71
	ATOM	977	CG	GLU A 127	13.434	71.052	51.871	1.00	37.61
	ATOM	978	CD	GLU A 127	12.763	72.391	51.971	1.00	42.53
25	ATOM	979	OE1	GLU A 127	11.816	72.730	51.272	1.00	63.41
	ATOM	980	OE2	GLU A 127	13.334	73.149	52.873	1.00	42.43
	ATOM	981	N	HIS A 128	10.729	67.260	52.730	1.00	32.31
	ATOM	982	CA	HIS A 128	9.786	66.221	52.395	1.00	29.92
30	ATOM	983	C	HIS A 128	9.400	65.337	53.570	1.00	27.82
	ATOM	984	O	HIS A 128	10.117	65.179	54.549	1.00	29.92
	ATOM	985	CB	HIS A 128	10.345	65.324	51.308	1.00	29.24
	ATOM	986	CG	HIS A 128	10.843	66.080	50.152	1.00	31.61
	ATOM	987	ND1	HIS A 128	9.978	66.601	49.205	1.00	33.89
	ATOM	988	CD2	HIS A 128	12.113	66.358	49.795	1.00	34.18
35	ATOM	989	CE1	HIS A 128	10.738	67.176	48.294	1.00	33.86
	ATOM	990	NE2	HIS A 128	12.030	67.053	48.618	1.00	34.37
	ATOM	991	N	PRO A 129	8.261	64.747	53.430	1.00	21.92
	ATOM	992	CA	PRO A 129	7.756	63.846	54.424	1.00	21.51
40	ATOM	993	C	PRO A 129	8.419	62.474	54.216	1.00	26.61
	ATOM	994	O	PRO A 129	9.302	62.284	53.376	1.00	25.02
	ATOM	995	CB	PRO A 129	6.265	63.736	54.162	1.00	21.80
	ATOM	996	CG	PRO A 129	6.098	64.059	52.690	1.00	28.71
	ATOM	997	CD	PRO A 129	7.353	64.818	52.263	1.00	23.90
45	ATOM	998	N	TYR A 130	8.016	61.498	54.998	1.00	22.26
	ATOM	999	CA	TYR A 130	8.646	60.195	54.881	1.00	20.30
	ATOM	1000	C	TYR A 130	7.747	59.148	55.492	1.00	23.74
	ATOM	1001	O	TYR A 130	7.022	59.381	56.442	1.00	23.54
	ATOM	1002	CB	TYR A 130	9.959	60.250	55.663	1.00	20.15
50	ATOM	1003	CG	TYR A 130	10.909	59.072	55.574	1.00	23.26
	ATOM	1004	CD1	TYR A 130	10.623	57.805	56.104	1.00	23.27
	ATOM	1005	CD2	TYR A 130	12.148	59.271	54.966	1.00	24.16
	ATOM	1006	CE1	TYR A 130	11.555	56.765	56.013	1.00	20.09
	ATOM	1007	CE2	TYR A 130	13.100	58.255	54.888	1.00	23.94
55	ATOM	1008	CZ	TYR A 130	12.795	57.001	55.410	1.00	19.50
	ATOM	1009	OH	TYR A 130	13.751	56.053	55.281	1.00	24.55
	ATOM	1010	N	LEU A 131	7.764	57.970	54.948	1.00	21.39
	ATOM	1011	CA	LEU A 131	6.916	56.975	55.551	1.00	23.29
	ATOM	1012	C	LEU A 131	7.671	55.654	55.583	1.00	26.48
60	ATOM	1013	O	LEU A 131	8.450	55.368	54.658	1.00	22.90
	ATOM	1014	CB	LEU A 131	5.632	56.805	54.721	1.00	22.31
	ATOM	1015	CG	LEU A 131	4.960	55.462	54.943	1.00	24.82
	ATOM	1016	CD1	LEU A 131	4.060	55.574	56.168	1.00	24.09
	ATOM	1017	CD2	LEU A 131	4.166	55.056	53.690	1.00	23.63
	ATOM	1018	N	PHE A 132	7.463	54.866	56.631	1.00	24.01

	ATOM	1019	CA	PHE A 132	8.101	53.539	56.711	1.00	23.69
	ATOM	1020	C	PHE A 132	7.231	52.575	57.474	1.00	23.59
	ATOM	1021	O	PHE A 132	6.529	52.952	58.394	1.00	20.95
5	ATOM	1022	CB	PHE A 132	9.545	53.507	57.253	1.00	25.79
	ATOM	1023	CG	PHE A 132	9.654	53.806	58.740	1.00	26.81
	ATOM	1024	CD1	PHE A 132	9.338	52.852	59.713	1.00	26.02
	ATOM	1025	CD2	PHE A 132	10.102	55.055	59.169	1.00	24.48
	ATOM	1026	CE1	PHE A 132	9.458	53.144	61.074	1.00	24.42
10	ATOM	1027	CE2	PHE A 132	10.230	55.362	60.525	1.00	23.41
	ATOM	1028	CZ	PHE A 132	9.900	54.403	61.485	1.00	19.60
	ATOM	1029	N	SER A 133	7.246	51.322	57.103	1.00	20.10
	ATOM	1030	CA	SER A 133	6.434	50.355	57.804	1.00	17.87
	ATOM	1031	C	SER A 133	7.320	49.461	58.639	1.00	18.33
15	ATOM	1032	O	SER A 133	8.539	49.439	58.517	1.00	21.07
	ATOM	1033	CB	SER A 133	5.739	49.451	56.811	1.00	24.24
	ATOM	1034	OG	SER A 133	6.735	48.694	56.128	1.00	24.12
	ATOM	1035	N	GLN A 134	6.659	48.710	59.463	1.00	15.44
	ATOM	1036	CA	GLN A 134	7.268	47.748	60.340	1.00	16.95
	ATOM	1037	C	GLN A 134	6.181	46.760	60.729	1.00	21.06
20	ATOM	1038	O	GLN A 134	5.401	46.994	61.632	1.00	22.06
	ATOM	1039	CB	GLN A 134	7.966	48.415	61.526	1.00	16.26
	ATOM	1040	CG	GLN A 134	8.392	47.346	62.549	1.00	24.87
	ATOM	1041	CD	GLN A 134	9.424	46.414	61.955	1.00	36.09
	ATOM	1042	OE1	GLN A 134	10.363	46.862	61.280	1.00	25.12
25	ATOM	1043	NE2	GLN A 134	9.242	45.111	62.187	1.00	30.48
	ATOM	1044	N	CYS A 135	6.076	45.647	60.013	1.00	15.84
	ATOM	1045	CA	CYS A 135	5.025	44.712	60.313	1.00	16.52
	ATOM	1046	C	CYS A 135	5.298	43.683	61.381	1.00	18.38
30	ATOM	1047	O	CYS A 135	4.354	43.170	61.995	1.00	19.10
	ATOM	1048	CB	CYS A 135	4.649	43.908	59.067	1.00	20.50
	ATOM	1049	SG	CYS A 135	4.051	44.971	57.762	1.00	25.25
	ATOM	1050	N	GLN A 136	6.545	43.284	61.564	1.00	16.69
	ATOM	1051	CA	GLN A 136	6.756	42.242	62.572	1.00	16.53
35	ATOM	1052	C	GLN A 136	6.454	42.824	63.926	1.00	20.04
	ATOM	1053	O	GLN A 136	6.853	43.946	64.194	1.00	21.71
	ATOM	1054	CB	GLN A 136	8.204	41.703	62.520	1.00	18.54
	ATOM	1055	CG	GLN A 136	8.488	40.565	63.533	1.00	16.78
	ATOM	1056	CD	GLN A 136	9.930	40.052	63.434	1.00	27.57
	ATOM	1057	OE1	GLN A 136	10.835	40.746	62.930	1.00	19.61
40	ATOM	1058	NE2	GLN A 136	10.141	38.826	63.903	1.00	25.09
	ATOM	1059	N	ALA A 137	5.730	42.087	64.769	1.00	16.79
	ATOM	1060	CA	ALA A 137	5.243	40.724	64.514	1.00	16.58
	ATOM	1061	C	ALA A 137	3.931	40.636	63.807	1.00	20.75
45	ATOM	1062	O	ALA A 137	3.798	39.912	62.836	1.00	19.63
	ATOM	1063	CB	ALA A 137	5.087	39.918	65.813	1.00	16.76
	ATOM	1064	N	ILE A 138	2.951	41.338	64.321	1.00	18.31
	ATOM	1065	CA	ILE A 138	1.647	41.247	63.721	1.00	18.68
	ATOM	1066	C	ILE A 138	1.065	42.566	63.294	1.00	19.68
50	ATOM	1067	O	ILE A 138	-0.053	42.896	63.633	1.00	21.65
	ATOM	1068	CB	ILE A 138	0.727	40.532	64.692	1.00	20.75
	ATOM	1069	CG1	ILE A 138	0.761	41.275	66.024	1.00	21.55
	ATOM	1070	CG2	ILE A 138	1.241	39.124	64.882	1.00	17.75
	ATOM	1071	CD1	ILE A 138	-0.211	40.698	67.044	1.00	23.44
55	ATOM	1072	N	HIS A 139	1.789	43.309	62.525	1.00	19.15
	ATOM	1073	CA	HIS A 139	1.231	44.581	62.113	1.00	19.05
	ATOM	1074	C	HIS A 139	0.899	44.615	60.644	1.00	23.60
	ATOM	1075	O	HIS A 139	0.427	45.604	60.127	1.00	25.90
	ATOM	1076	CB	HIS A 139	2.149	45.781	62.471	1.00	19.09
60	ATOM	1077	CG	HIS A 139	2.429	45.870	63.961	1.00	21.83
	ATOM	1078	ND1	HIS A 139	1.476	46.324	64.872	1.00	22.32
	ATOM	1079	CD2	HIS A 139	3.547	45.567	64.661	1.00	21.82
	ATOM	1080	CE1	HIS A 139	2.022	46.253	66.072	1.00	21.72
	ATOM	1081	NE2	HIS A 139	3.259	45.811	65.980	1.00	21.41
	ATOM	1082	N	CYS A 140	1.175	43.545	59.942	1.00	21.39

	ATOM	1083	CA	CYS	A	140	0.854	43.573	58.525	1.00	21.71
	ATOM	1084	C	CYS	A	140	-0.630	43.848	58.327	1.00	20.64
	ATOM	1085	O	CYS	A	140	-1.071	44.542	57.405	1.00	21.98
5	ATOM	1086	CB	CYS	A	140	1.237	42.260	57.823	1.00	22.30
	ATOM	1087	SG	CYS	A	140	1.089	42.457	56.029	1.00	27.57
	ATOM	1088	N	ARG	A	141	-1.384	43.259	59.232	1.00	18.28
	ATOM	1089	CA	ARG	A	141	-2.819	43.369	59.261	1.00	20.32
	ATOM	1090	C	ARG	A	141	-3.265	44.823	59.352	1.00	27.93
10	ATOM	1091	O	ARG	A	141	-4.438	45.135	59.078	1.00	29.72
	ATOM	1092	CB	ARG	A	141	-3.436	42.518	60.369	1.00	16.68
	ATOM	1093	CG	ARG	A	141	-3.035	42.944	61.781	1.00	18.27
	ATOM	1094	CD	ARG	A	141	-3.571	41.985	62.866	1.00	15.44
	ATOM	1095	NE	ARG	A	141	-2.857	40.717	62.896	1.00	20.15
15	ATOM	1096	CZ	ARG	A	141	-2.996	39.785	63.813	1.00	20.72
	ATOM	1097	NH1	ARG	A	141	-3.825	39.908	64.827	1.00	16.67
	ATOM	1098	NH2	ARG	A	141	-2.258	38.692	63.685	1.00	22.83
	ATOM	1099	N	ALA	A	142	-2.314	45.707	59.754	1.00	18.15
	ATOM	1100	CA	ALA	A	142	-2.599	47.127	59.901	1.00	17.64
20	ATOM	1101	C	ALA	A	142	-2.265	47.823	58.619	1.00	22.89
	ATOM	1102	O	ALA	A	142	-2.296	49.024	58.506	1.00	22.38
	ATOM	1103	CB	ALA	A	142	-1.908	47.771	61.085	1.00	17.04
	ATOM	1104	N	ILE	A	143	-1.925	47.041	57.621	1.00	24.40
	ATOM	1105	CA	ILE	A	143	-1.634	47.632	56.341	1.00	25.97
25	ATOM	1106	C	ILE	A	143	-2.641	47.117	55.334	1.00	33.49
	ATOM	1107	O	ILE	A	143	-3.259	47.865	54.585	1.00	36.37
	ATOM	1108	CB	ILE	A	143	-0.222	47.447	55.839	1.00	29.94
	ATOM	1109	CG1	ILE	A	143	0.791	47.972	56.853	1.00	29.88
	ATOM	1110	CG2	ILE	A	143	-0.094	48.232	54.533	1.00	33.06
30	ATOM	1111	CD1	ILE	A	143	2.224	47.722	56.389	1.00	26.42
	ATOM	1112	N	LEU	A	144	-2.843	45.822	55.350	1.00	28.38
	ATOM	1113	CA	LEU	A	144	-3.815	45.204	54.438	1.00	29.40
	ATOM	1114	C	LEU	A	144	-4.421	43.917	55.030	1.00	33.99
	ATOM	1115	O	LEU	A	144	-3.928	43.349	56.037	1.00	30.51
35	ATOM	1116	CB	LEU	A	144	-3.213	44.969	53.037	1.00	30.43
	ATOM	1117	CG	LEU	A	144	-1.868	44.266	53.111	1.00	33.80
	ATOM	1118	CD1	LEU	A	144	-2.073	42.761	53.007	1.00	35.20
	ATOM	1119	CD2	LEU	A	144	-0.935	44.758	52.023	1.00	38.26
	ATOM	1120	N	PRO	A	145	-5.507	43.446	54.432	1.00	27.43
40	ATOM	1121	CA	PRO	A	145	-6.094	42.259	54.979	1.00	25.19
	ATOM	1122	C	PRO	A	145	-5.294	41.059	54.513	1.00	23.80
	ATOM	1123	O	PRO	A	145	-4.832	41.009	53.376	1.00	23.96
	ATOM	1124	CB	PRO	A	145	-7.567	42.266	54.566	1.00	27.07
	ATOM	1125	CG	PRO	A	145	-7.810	43.609	53.886	1.00	31.08
45	ATOM	1126	CD	PRO	A	145	-6.445	44.131	53.505	1.00	26.31
	ATOM	1127	N	CYS	A	146	-5.080	40.145	55.448	1.00	23.01
	ATOM	1128	CA	CYS	A	146	-4.272	38.956	55.215	1.00	24.70
	ATOM	1129	C	CYS	A	146	-4.329	37.973	56.367	1.00	28.20
	ATOM	1130	O	CYS	A	146	-4.966	38.211	57.413	1.00	23.14
50	ATOM	1131	CB	CYS	A	146	-2.793	39.335	55.036	1.00	25.42
	ATOM	1132	SG	CYS	A	146	-2.164	40.274	56.463	1.00	31.88
	ATOM	1133	N	GLN	A	147	-3.647	36.843	56.134	1.00	22.82
	ATOM	1134	CA	GLN	A	147	-3.522	35.796	57.127	1.00	23.08
	ATOM	1135	C	GLN	A	147	-2.238	36.197	57.832	1.00	28.00
55	ATOM	1136	O	GLN	A	147	-1.131	35.841	57.415	1.00	25.08
	ATOM	1137	CB	GLN	A	147	-3.346	34.427	56.449	1.00	24.85
	ATOM	1138	CG	GLN	A	147	-4.671	33.762	56.084	1.00	19.17
	ATOM	1139	CD	GLN	A	147	-4.391	32.428	55.427	1.00	25.96
	ATOM	1140	OE1	GLN	A	147	-3.871	32.408	54.311	1.00	20.64
60	ATOM	1141	NE2	GLN	A	147	-4.680	31.326	56.117	1.00	20.44
	ATOM	1142	N	ASP	A	148	-2.408	37.011	58.860	1.00	23.32
	ATOM	1143	CA	ASP	A	148	-1.295	37.566	59.587	1.00	23.26
	ATOM	1144	C	ASP	A	148	-0.627	36.639	60.595	1.00	23.40
	ATOM	1145	O	ASP	A	148	-0.574	36.941	61.790	1.00	24.25
	ATOM	1146	CB	ASP	A	148	-1.665	38.916	60.237	1.00	24.70



	ATOM	1147	CG	ASP	A 148	-0.440	39.722	60.517	1.00	27.92
	ATOM	1148	OD1	ASP	A 148	0.678	39.389	60.113	1.00	27.89
	ATOM	1149	OD2	ASP	A 148	-0.695	40.795	61.224	1.00	19.92
5	ATOM	1150	N	THR	A 149	-0.099	35.537	60.060	1.00	19.68
	ATOM	1151	CA	THR	A 149	0.607	34.501	60.793	1.00	18.44
	ATOM	1152	C	THR	A 149	1.818	34.079	59.981	1.00	23.20
	ATOM	1153	O	THR	A 149	1.761	34.027	58.741	1.00	18.98
	ATOM	1154	CB	THR	A 149	-0.261	33.256	61.004	1.00	29.08
10	ATOM	1155	OG1	THR	A 149	0.577	32.168	61.421	1.00	24.67
	ATOM	1156	CG2	THR	A 149	-0.979	32.910	59.680	1.00	23.64
	ATOM	1157	N	PRO	A 150	2.921	33.765	60.686	1.00	21.90
	ATOM	1158	CA	PRO	A 150	4.159	33.323	60.016	1.00	19.21
	ATOM	1159	C	PRO	A 150	4.018	31.886	59.479	1.00	21.32
15	ATOM	1160	O	PRO	A 150	4.898	31.352	58.829	1.00	18.90
	ATOM	1161	CB	PRO	A 150	5.260	33.356	61.103	1.00	19.24
	ATOM	1162	CG	PRO	A 150	4.544	33.455	62.444	1.00	20.32
	ATOM	1163	CD	PRO	A 150	3.125	33.922	62.168	1.00	20.18
	ATOM	1164	N	SER	A 151	2.902	31.226	59.771	1.00	18.68
20	ATOM	1165	CA	SER	A 151	2.737	29.862	59.276	1.00	20.66
	ATOM	1166	C	SER	A 151	2.351	29.863	57.820	1.00	22.40
	ATOM	1167	O	SER	A 151	2.295	28.836	57.199	1.00	26.24
	ATOM	1168	CB	SER	A 151	1.674	29.117	60.057	1.00	25.01
	ATOM	1169	OG	SER	A 151	0.444	29.814	59.897	1.00	32.09
25	ATOM	1170	N	VAL	A 152	2.086	31.017	57.282	1.00	18.17
	ATOM	1171	CA	VAL	A 152	1.696	31.105	55.899	1.00	20.54
	ATOM	1172	C	VAL	A 152	2.740	31.874	55.088	1.00	26.40
	ATOM	1173	O	VAL	A 152	3.159	32.955	55.494	1.00	25.43
	ATOM	1174	CB	VAL	A 152	0.307	31.756	55.773	1.00	22.01
30	ATOM	1175	CG1	VAL	A 152	0.000	32.092	54.316	1.00	21.07
	ATOM	1176	CG2	VAL	A 152	-0.742	30.818	56.325	1.00	21.78
	ATOM	1177	N	LYS	A 153	3.163	31.316	53.934	1.00	21.69
	ATOM	1178	CA	LYS	A 153	4.146	31.985	53.101	1.00	20.64
	ATOM	1179	C	LYS	A 153	3.606	32.223	51.720	1.00	25.15
35	ATOM	1180	O	LYS	A 153	3.041	31.329	51.114	1.00	27.06
	ATOM	1181	CB	LYS	A 153	5.455	31.218	53.016	1.00	24.18
	ATOM	1182	CG	LYS	A 153	6.159	31.061	54.360	1.00	29.97
	ATOM	1183	CD	LYS	A 153	7.582	30.546	54.220	1.00	19.10
	ATOM	1184	CE	LYS	A 153	8.276	30.287	55.546	1.00	24.45
40	ATOM	1185	NZ	LYS	A 153	9.760	30.289	55.457	1.00	21.92
	ATOM	1186	N	LEU	A 154	3.768	33.438	51.213	1.00	22.90
	ATOM	1187	CA	LEU	A 154	3.286	33.772	49.876	1.00	22.75
	ATOM	1188	C	LEU	A 154	4.280	34.594	49.091	1.00	23.26
	ATOM	1189	O	LEU	A 154	5.225	35.207	49.624	1.00	21.95
45	ATOM	1190	CB	LEU	A 154	1.989	34.615	49.972	1.00	23.48
	ATOM	1191	CG	LEU	A 154	2.246	35.948	50.729	1.00	29.06
	ATOM	1192	CD1	LEU	A 154	1.385	37.086	50.200	1.00	29.05
	ATOM	1193	CD2	LEU	A 154	1.986	35.788	52.225	1.00	26.55
	ATOM	1194	N	THR	A 155	4.033	34.653	47.791	1.00	22.63
50	ATOM	1195	CA	THR	A 155	4.862	35.499	46.940	1.00	25.54
	ATOM	1196	C	THR	A 155	4.088	36.820	46.772	1.00	26.35
	ATOM	1197	O	THR	A 155	2.929	36.943	47.190	1.00	25.33
	ATOM	1198	CB	THR	A 155	5.122	34.931	45.526	1.00	26.50
	ATOM	1199	OG1	THR	A 155	3.937	34.294	45.141	1.00	31.87
55	ATOM	1200	CG2	THR	A 155	6.327	33.991	45.488	1.00	21.48
	ATOM	1201	N	TYR	A 156	4.721	37.802	46.154	1.00	23.09
	ATOM	1202	CA	TYR	A 156	4.021	39.040	45.943	1.00	22.25
	ATOM	1203	C	TYR	A 156	4.631	39.924	44.889	1.00	24.76
	ATOM	1204	O	TYR	A 156	5.846	39.919	44.601	1.00	28.65
60	ATOM	1205	CB	TYR	A 156	3.735	39.831	47.252	1.00	22.99
	ATOM	1206	CG	TYR	A 156	4.853	40.754	47.751	1.00	24.46
	ATOM	1207	CD1	TYR	A 156	4.992	42.048	47.246	1.00	26.47
	ATOM	1208	CD2	TYR	A 156	5.744	40.356	48.755	1.00	22.08
	ATOM	1209	CE1	TYR	A 156	6.003	42.894	47.704	1.00	27.20
	ATOM	1210	CE2	TYR	A 156	6.755	41.194	49.242	1.00	19.36

5	ATOM	1211	CZ	TYR	A	156	6.874	42.476	48.709	1.00	28.26
	ATOM	1212	OH	TYR	A	156	7.819	43.341	49.176	1.00	23.92
	ATOM	1213	N	THR	A	157	3.737	40.711	44.325	1.00	20.53
	ATOM	1214	CA	THR	A	157	4.079	41.726	43.358	1.00	22.66
	ATOM	1215	C	THR	A	157	3.374	42.996	43.844	1.00	27.95
10	ATOM	1216	O	THR	A	157	2.300	42.941	44.469	1.00	27.60
	ATOM	1217	CB	THR	A	157	3.660	41.345	41.931	1.00	36.12
	ATOM	1218	OG1	THR	A	157	2.311	40.913	41.927	1.00	35.88
	ATOM	1219	CG2	THR	A	157	4.528	40.177	41.502	1.00	31.47
	ATOM	1220	N	ALA	A	158	3.984	44.136	43.604	1.00	26.56
15	ATOM	1221	CA	ALA	A	158	3.357	45.363	44.034	1.00	28.25
	ATOM	1222	C	ALA	A	158	3.661	46.555	43.115	1.00	33.79
	ATOM	1223	O	ALA	A	158	4.737	46.682	42.469	1.00	31.04
	ATOM	1224	CB	ALA	A	158	3.749	45.700	45.460	1.00	26.89
	ATOM	1225	N	GLU	A	159	2.693	47.453	43.081	1.00	30.94
20	ATOM	1226	CA	GLU	A	159	2.863	48.658	42.328	1.00	32.37
	ATOM	1227	C	GLU	A	159	2.434	49.789	43.226	1.00	31.24
	ATOM	1228	O	GLU	A	159	1.311	49.803	43.735	1.00	29.85
	ATOM	1229	CB	GLU	A	159	2.118	48.680	40.993	1.00	35.41
	ATOM	1230	CG	GLU	A	159	1.749	47.300	40.444	1.00	59.87
25	ATOM	1231	CD	GLU	A	159	0.983	47.438	39.160	1.00	98.76
	ATOM	1232	OE1	GLU	A	159	-0.110	47.979	39.091	1.00	78.51
	ATOM	1233	OE2	GLU	A	159	1.636	46.958	38.126	1.00	100.00
	ATOM	1234	N	VAL	A	160	3.337	50.714	43.472	1.00	28.73
	ATOM	1235	CA	VAL	A	160	2.915	51.778	44.352	1.00	29.43
30	ATOM	1236	C	VAL	A	160	3.180	53.148	43.786	1.00	29.09
	ATOM	1237	O	VAL	A	160	4.292	53.442	43.354	1.00	27.09
	ATOM	1238	CB	VAL	A	160	3.370	51.589	45.785	1.00	33.76
	ATOM	1239	CG1	VAL	A	160	4.212	50.321	45.892	1.00	33.85
	ATOM	1240	CG2	VAL	A	160	4.097	52.814	46.314	1.00	32.12
35	ATOM	1241	N	SER	A	161	2.132	53.967	43.760	1.00	29.81
	ATOM	1242	CA	SER	A	161	2.249	55.323	43.202	1.00	29.33
	ATOM	1243	C	SER	A	161	2.558	56.310	44.299	1.00	30.68
	ATOM	1244	O	SER	A	161	1.840	56.364	45.299	1.00	32.33
	ATOM	1245	CB	SER	A	161	0.963	55.756	42.514	1.00	32.12
40	ATOM	1246	OG	SER	A	161	1.074	57.091	42.092	1.00	36.30
	ATOM	1247	N	VAL	A	162	3.614	57.073	44.115	1.00	24.51
	ATOM	1248	CA	VAL	A	162	3.968	58.033	45.125	1.00	25.24
	ATOM	1249	C	VAL	A	162	4.187	59.371	44.477	1.00	37.10
	ATOM	1250	O	VAL	A	162	4.359	59.438	43.257	1.00	36.28
45	ATOM	1251	CB	VAL	A	162	5.284	57.657	45.821	1.00	25.44
	ATOM	1252	CG1	VAL	A	162	5.213	56.287	46.487	1.00	24.46
	ATOM	1253	CG2	VAL	A	162	6.429	57.684	44.831	1.00	24.47
	ATOM	1254	N	PRO	A	163	4.203	60.416	45.312	1.00	31.09
	ATOM	1255	CA	PRO	A	163	4.476	61.733	44.805	1.00	31.84
50	ATOM	1256	C	PRO	A	163	5.792	61.640	44.040	1.00	31.38
	ATOM	1257	O	PRO	A	163	6.821	61.177	44.545	1.00	30.83
	ATOM	1258	CB	PRO	A	163	4.545	62.640	46.047	1.00	33.90
	ATOM	1259	CG	PRO	A	163	3.818	61.891	47.158	1.00	36.16
	ATOM	1260	CD	PRO	A	163	3.635	60.458	46.680	1.00	29.11
55	ATOM	1261	N	LYS	A	164	5.738	62.040	42.789	1.00	30.95
	ATOM	1262	CA	LYS	A	164	6.875	61.950	41.891	1.00	30.90
	ATOM	1263	C	LYS	A	164	8.223	62.361	42.405	1.00	32.87
	ATOM	1264	O	LYS	A	164	9.249	61.973	41.850	1.00	29.98
	ATOM	1265	CB	LYS	A	164	6.614	62.525	40.525	1.00	38.69
60	ATOM	1266	CG	LYS	A	164	5.381	63.405	40.464	1.00	60.47
	ATOM	1267	CD	LYS	A	164	5.608	64.642	39.612	1.00	87.95
	ATOM	1268	CE	LYS	A	164	6.869	64.557	38.757	1.00	94.83
	ATOM	1269	NZ	LYS	A	164	7.762	65.712	38.926	1.00	100.00
	ATOM	1270	N	GLU	A	165	8.253	63.168	43.445	1.00	32.55
	ATOM	1271	CA	GLU	A	165	9.540	63.587	43.946	1.00	33.95
	ATOM	1272	C	GLU	A	165	10.107	62.617	44.949	1.00	36.46
	ATOM	1273	O	GLU	A	165	11.245	62.742	45.348	1.00	36.58
	ATOM	1274	CB	GLU	A	165	9.510	65.006	44.540	1.00	37.35

	ATOM	1275	CG	GLU	A	165	8.599	65.165	45.784	1.00	53.54
	ATOM	1276	CD	GLU	A	165	7.138	65.409	45.480	1.00	77.59
	ATOM	1277	OE1	GLU	A	165	6.598	65.114	44.421	1.00	44.13
5	ATOM	1278	OE2	GLU	A	165	6.512	65.959	46.494	1.00	78.66
	ATOM	1279	N	LEU	A	166	9.314	61.641	45.318	1.00	33.08
	ATOM	1280	CA	LEU	A	166	9.772	60.695	46.299	1.00	33.49
	ATOM	1281	C	LEU	A	166	10.068	59.321	45.734	1.00	40.05
	ATOM	1282	O	LEU	A	166	9.578	58.987	44.646	1.00	41.96
10	ATOM	1283	CB	LEU	A	166	8.727	60.596	47.423	1.00	31.45
	ATOM	1284	CG	LEU	A	166	8.352	61.938	48.020	1.00	29.81
	ATOM	1285	CD1	LEU	A	166	7.242	61.711	49.041	1.00	27.01
	ATOM	1286	CD2	LEU	A	166	9.598	62.582	48.632	1.00	21.37
	ATOM	1287	N	VAL	A	167	10.874	58.544	46.500	1.00	30.67
	ATOM	1288	CA	VAL	A	167	11.238	57.178	46.138	1.00	29.31
15	ATOM	1289	C	VAL	A	167	10.478	56.157	46.996	1.00	35.64
	ATOM	1290	O	VAL	A	167	10.216	56.385	48.183	1.00	32.65
	ATOM	1291	CB	VAL	A	167	12.721	56.904	46.304	1.00	30.60
	ATOM	1292	CG1	VAL	A	167	13.000	55.483	45.849	1.00	29.30
	ATOM	1293	CG2	VAL	A	167	13.562	57.880	45.521	1.00	31.04
20	ATOM	1294	N	ALA	A	168	10.132	55.017	46.400	1.00	33.01
	ATOM	1295	CA	ALA	A	168	9.453	53.943	47.115	1.00	29.38
	ATOM	1296	C	ALA	A	168	10.289	52.685	46.978	1.00	36.90
	ATOM	1297	O	ALA	A	168	10.786	52.362	45.875	1.00	37.97
25	ATOM	1298	CB	ALA	A	168	8.046	53.694	46.637	1.00	28.00
	ATOM	1299	N	LEU	A	169	10.482	51.997	48.110	1.00	28.52
	ATOM	1300	CA	LEU	A	169	11.256	50.769	48.139	1.00	24.26
	ATOM	1301	C	LEU	A	169	10.464	49.738	48.879	1.00	27.24
	ATOM	1302	O	LEU	A	169	9.694	50.071	49.786	1.00	25.74
30	ATOM	1303	CB	LEU	A	169	12.615	50.908	48.841	1.00	24.31
	ATOM	1304	CG	LEU	A	169	13.525	51.974	48.250	1.00	28.56
	ATOM	1305	CD1	LEU	A	169	14.739	52.181	49.173	1.00	27.05
	ATOM	1306	CD2	LEU	A	169	13.993	51.550	46.852	1.00	27.25
	ATOM	1307	N	MET	A	170	10.649	48.480	48.486	1.00	26.02
35	ATOM	1308	CA	MET	A	170	9.952	47.392	49.144	1.00	23.03
	ATOM	1309	C	MET	A	170	10.856	46.224	49.455	1.00	18.57
	ATOM	1310	O	MET	A	170	12.033	46.212	49.085	1.00	20.77
	ATOM	1311	CB	MET	A	170	8.712	46.943	48.371	1.00	24.60
	ATOM	1312	CG	MET	A	170	7.654	47.979	48.535	1.00	25.34
40	ATOM	1313	SD	MET	A	170	6.105	47.419	47.869	1.00	28.58
	ATOM	1314	CE	MET	A	170	5.380	46.463	49.232	1.00	24.66
	ATOM	1315	N	SER	A	171	10.298	45.244	50.173	1.00	17.78
	ATOM	1316	CA	SER	A	171	11.062	44.069	50.482	1.00	16.80
	ATOM	1317	C	SER	A	171	10.905	43.128	49.265	1.00	26.03
45	ATOM	1318	O	SER	A	171	10.389	42.018	49.344	1.00	25.31
	ATOM	1319	CB	SER	A	171	10.527	43.436	51.748	1.00	17.00
	ATOM	1320	OG	SER	A	171	9.130	43.207	51.625	1.00	20.17
	ATOM	1321	N	ALA	A	172	11.298	43.612	48.095	1.00	26.60
	ATOM	1322	CA	ALA	A	172	11.154	42.849	46.875	1.00	25.77
50	ATOM	1323	C	ALA	A	172	12.153	43.339	45.860	1.00	32.28
	ATOM	1324	O	ALA	A	172	12.897	44.299	46.114	1.00	26.87
	ATOM	1325	CB	ALA	A	172	9.762	43.083	46.332	1.00	25.21
	ATOM	1326	N	ILE	A	173	12.180	42.678	44.700	1.00	30.44
	ATOM	1327	CA	ILE	A	173	13.107	43.110	43.661	1.00	29.54
55	ATOM	1328	C	ILE	A	173	12.510	44.319	42.959	1.00	30.78
	ATOM	1329	O	ILE	A	173	11.331	44.315	42.583	1.00	29.32
	ATOM	1330	CB	ILE	A	173	13.479	41.997	42.661	1.00	31.06
	ATOM	1331	CG1	ILE	A	173	14.210	40.874	43.388	1.00	28.42
	ATOM	1332	CG2	ILE	A	173	14.431	42.563	41.617	1.00	32.58
60	ATOM	1333	CD1	ILE	A	173	15.604	41.286	43.851	1.00	33.22
	ATOM	1334	N	ARG	A	174	13.328	45.356	42.834	1.00	31.92
	ATOM	1335	CA	ARG	A	174	12.906	46.595	42.197	1.00	33.87
	ATOM	1336	C	ARG	A	174	12.582	46.236	40.785	1.00	39.44
	ATOM	1337	O	ARG	A	174	13.467	45.775	40.091	1.00	34.80
	ATOM	1338	CB	ARG	A	174	14.004	47.669	42.218	1.00	35.31

	ATOM	1339	CG	ARG	A	174	14.186	48.368	43.579	1.00	42.88
	ATOM	1340	CD	ARG	A	174	15.229	49.492	43.608	1.00	39.93
	ATOM	1341	NE	ARG	A	174	16.516	49.129	43.013	1.00	59.20
5	ATOM	1342	CZ	ARG	A	174	17.329	49.992	42.407	1.00	92.36
	ATOM	1343	NH1	ARG	A	174	17.032	51.288	42.284	1.00	100.00
	ATOM	1344	NH2	ARG	A	174	18.474	49.542	41.901	1.00	84.94
	ATOM	1345	N	ASP	A	175	11.324	46.397	40.406	1.00	44.29
	ATOM	1346	CA	ASP	A	175	10.850	46.070	39.076	1.00	48.46
10	ATOM	1347	C	ASP	A	175	10.987	47.236	38.107	1.00	61.94
	ATOM	1348	O	ASP	A	175	11.709	47.177	37.124	1.00	69.21
	ATOM	1349	CB	ASP	A	175	9.401	45.553	39.111	1.00	52.28
	ATOM	1350	CG	ASP	A	175	9.079	44.536	38.041	1.00	76.56
	ATOM	1351	OD1	ASP	A	175	9.926	44.028	37.313	1.00	76.21
15	ATOM	1352	OD2	ASP	A	175	7.788	44.270	37.964	1.00	85.33
	ATOM	1353	N	GLY	A	176	10.293	48.309	38.369	1.00	59.49
	ATOM	1354	CA	GLY	A	176	10.405	49.442	37.489	1.00	59.25
	ATOM	1355	C	GLY	A	176	9.723	50.662	38.055	1.00	62.28
	ATOM	1356	O	GLY	A	176	8.958	50.585	39.026	1.00	61.93
20	ATOM	1357	N	GLU	A	177	10.028	51.784	37.418	1.00	56.86
	ATOM	1358	CA	GLU	A	177	9.473	53.070	37.772	1.00	56.20
	ATOM	1359	C	GLU	A	177	9.128	53.804	36.495	1.00	66.31
	ATOM	1360	O	GLU	A	177	9.865	53.745	35.499	1.00	67.90
	ATOM	1361	CB	GLU	A	177	10.411	53.926	38.645	1.00	55.46
25	ATOM	1362	CG	GLU	A	177	11.304	54.835	37.783	1.00	54.29
	ATOM	1363	CD	GLU	A	177	11.996	55.940	38.534	1.00	73.05
	ATOM	1364	OE1	GLU	A	177	11.471	57.005	38.805	1.00	66.34
	ATOM	1365	OE2	GLU	A	177	13.242	55.657	38.817	1.00	54.79
	ATOM	1366	N	THR	A	178	7.997	54.483	36.541	1.00	63.56
30	ATOM	1367	CA	THR	A	178	7.496	55.245	35.419	1.00	63.49
	ATOM	1368	C	THR	A	178	6.534	56.305	35.923	1.00	64.39
	ATOM	1369	O	THR	A	178	6.338	56.452	37.118	1.00	65.55
	ATOM	1370	CB	THR	A	178	6.737	54.290	34.479	1.00	79.55
	ATOM	1371	OG1	THR	A	178	6.206	55.012	33.376	1.00	100.00
35	ATOM	1372	CG2	THR	A	178	5.617	53.590	35.263	1.00	62.95
	ATOM	1373	N	PRO	A	179	5.919	57.042	35.013	1.00	56.32
	ATOM	1374	CA	PRO	A	179	4.958	58.025	35.406	1.00	51.92
	ATOM	1375	C	PRO	A	179	3.593	57.388	35.536	1.00	51.24
	ATOM	1376	O	PRO	A	179	3.192	56.586	34.698	1.00	51.46
40	ATOM	1377	CB	PRO	A	179	4.942	59.054	34.282	1.00	53.51
	ATOM	1378	CG	PRO	A	179	6.214	58.838	33.470	1.00	59.43
	ATOM	1379	CD	PRO	A	179	6.905	57.628	34.060	1.00	56.49
	ATOM	1380	N	ASP	A	180	2.906	57.739	36.614	1.00	44.92
	ATOM	1381	CA	ASP	A	180	1.581	57.264	36.884	1.00	45.28
45	ATOM	1382	C	ASP	A	180	0.780	57.912	35.799	1.00	62.22
	ATOM	1383	O	ASP	A	180	1.131	59.004	35.376	1.00	62.62
	ATOM	1384	CB	ASP	A	180	1.156	57.806	38.255	1.00	43.41
	ATOM	1385	CG	ASP	A	180	-0.212	57.380	38.679	1.00	48.40
	ATOM	1386	OD1	ASP	A	180	-1.073	56.997	37.904	1.00	53.37
50	ATOM	1387	OD2	ASP	A	180	-0.383	57.463	39.973	1.00	47.57
	ATOM	1388	N	PRO	A	181	-0.243	57.280	35.296	1.00	69.44
	ATOM	1389	CA	PRO	A	181	-0.950	57.955	34.234	1.00	72.53
	ATOM	1390	C	PRO	A	181	-2.382	58.272	34.587	1.00	82.99
	ATOM	1391	O	PRO	A	181	-3.231	58.459	33.717	1.00	84.95
55	ATOM	1392	CB	PRO	A	181	-0.829	57.076	32.987	1.00	74.39
	ATOM	1393	CG	PRO	A	181	0.153	55.954	33.319	1.00	77.89
	ATOM	1394	CD	PRO	A	181	0.458	56.057	34.810	1.00	71.93
	ATOM	1395	N	GLU	A	182	-2.632	58.382	35.887	1.00	83.47
	ATOM	1396	CA	GLU	A	182	-3.961	58.676	36.386	1.00	86.24
60	ATOM	1397	C	GLU	A	182	-4.259	60.167	36.436	1.00	98.16
	ATOM	1398	O	GLU	A	182	-4.003	60.882	35.460	1.00	100.00
	ATOM	1399	CB	GLU	A	182	-4.278	57.994	37.726	1.00	87.28
	ATOM	1400	CG	GLU	A	182	-5.779	57.681	37.863	1.00	90.17
	ATOM	1401	CD	GLU	A	182	-6.257	56.682	36.842	1.00	100.00
	ATOM	1402	OE1	GLU	A	182	-6.233	56.882	35.637	1.00	100.00

	ATOM	1403	OE2	GLU	A	182	-6.718	55.578	37.385	1.00100.00
	ATOM	1404	N	ASP	A	183	-4.767	60.640	37.598	1.00 96.59
	ATOM	1405	CA	ASP	A	183	-5.124	62.060	37.848	1.00 97.69
5	ATOM	1406	C	ASP	A	183	-4.078	62.809	38.721	1.00100.00
	ATOM	1407	O	ASP	A	183	-4.439	63.829	39.375	1.00100.00
	ATOM	1408	CB	ASP	A	183	-6.477	62.127	38.653	1.00 99.62
	ATOM	1409	CG	ASP	A	183	-7.712	61.432	38.090	1.00100.00
	ATOM	1410	OD1	ASP	A	183	-8.310	60.544	38.680	1.00100.00
10	ATOM	1411	OD2	ASP	A	183	-8.091	61.903	36.918	1.00100.00
	ATOM	1412	N	PRO	A	184	-2.797	62.341	38.750	1.00 95.70
	ATOM	1413	CA	PRO	A	184	-1.734	62.796	39.641	1.00 94.16
	ATOM	1414	C	PRO	A	184	-0.516	63.593	39.206	1.00 96.46
	ATOM	1415	O	PRO	A	184	-0.294	63.958	38.050	1.00 99.66
15	ATOM	1416	CB	PRO	A	184	-0.980	61.479	39.654	1.00 95.77
	ATOM	1417	CG	PRO	A	184	-0.835	61.166	38.163	1.00 99.25
	ATOM	1418	CD	PRO	A	184	-2.085	61.763	37.565	1.00 94.91
	ATOM	1419	N	SER	A	185	0.318	63.703	40.258	1.00 86.69
	ATOM	1420	CA	SER	A	185	1.658	64.262	40.362	1.00 82.33
20	ATOM	1421	C	SER	A	185	2.434	63.253	41.219	1.00 77.73
	ATOM	1422	O	SER	A	185	3.198	63.570	42.144	1.00 79.49
	ATOM	1423	CB	SER	A	185	1.710	65.661	40.921	1.00 85.04
	ATOM	1424	OG	SER	A	185	2.756	66.349	40.263	1.00 97.98
	ATOM	1425	N	ARG	A	186	2.121	61.994	40.856	1.00 62.61
25	ATOM	1426	CA	ARG	A	186	2.591	60.741	41.404	1.00 55.55
	ATOM	1427	C	ARG	A	186	3.444	59.990	40.366	1.00 56.85
	ATOM	1428	O	ARG	A	186	3.354	60.216	39.158	1.00 56.42
	ATOM	1429	CB	ARG	A	186	1.388	59.859	41.742	1.00 41.52
	ATOM	1430	CG	ARG	A	186	0.432	60.389	42.805	1.00 32.21
30	ATOM	1431	CD	ARG	A	186	0.602	59.683	44.153	1.00 42.93
	ATOM	1432	NE	ARG	A	186	-0.519	59.935	45.043	1.00 79.86
	ATOM	1433	CZ	ARG	A	186	-0.467	60.731	46.113	1.00100.00
	ATOM	1434	NH1	ARG	A	186	0.659	61.360	46.468	1.00100.00
	ATOM	1435	NH2	ARG	A	186	-1.566	60.880	46.860	1.00100.00
35	ATOM	1436	N	LYS	A	187	4.273	59.078	40.867	1.00 47.78
	ATOM	1437	CA	LYS	A	187	5.164	58.231	40.095	1.00 44.24
	ATOM	1438	C	LYS	A	187	4.856	56.802	40.532	1.00 50.17
	ATOM	1439	O	LYS	A	187	4.464	56.573	41.684	1.00 49.60
	ATOM	1440	CB	LYS	A	187	6.604	58.608	40.417	1.00 45.31
40	ATOM	1441	CG	LYS	A	187	7.703	57.832	39.706	1.00 37.40
	ATOM	1442	CD	LYS	A	187	9.099	58.045	40.318	1.00 37.61
	ATOM	1443	CE	LYS	A	187	9.919	59.196	39.732	1.00 27.19
	ATOM	1444	NZ	LYS	A	187	11.371	59.057	39.898	1.00 40.78
	ATOM	1445	N	ILE	A	188	5.006	55.832	39.620	1.00 46.34
45	ATOM	1446	CA	ILE	A	188	4.732	54.438	39.963	1.00 43.89
	ATOM	1447	C	ILE	A	188	5.884	53.438	40.044	1.00 45.27
	ATOM	1448	O	ILE	A	188	6.596	53.147	39.068	1.00 42.03
	ATOM	1449	CB	ILE	A	188	3.357	53.861	39.782	1.00 46.49
	ATOM	1450	CG1	ILE	A	188	3.571	52.427	39.378	1.00 46.61
50	ATOM	1451	CG2	ILE	A	188	2.528	54.603	38.744	1.00 45.69
	ATOM	1452	CD1	ILE	A	188	2.888	51.492	40.354	1.00 66.60
	ATOM	1453	N	TYR	A	189	6.055	52.933	41.277	1.00 39.79
	ATOM	1454	CA	TYR	A	189	7.108	52.024	41.630	1.00 36.01
	ATOM	1455	C	TYR	A	189	6.634	50.615	41.665	1.00 36.02
	ATOM	1456	O	TYR	A	189	5.632	50.291	42.321	1.00 36.41
55	ATOM	1457	CB	TYR	A	189	7.766	52.446	42.952	1.00 37.07
	ATOM	1458	CG	TYR	A	189	8.644	53.677	42.783	1.00 36.77
	ATOM	1459	CD1	TYR	A	189	9.904	53.567	42.197	1.00 39.01
	ATOM	1460	CD2	TYR	A	189	8.216	54.942	43.193	1.00 34.62
60	ATOM	1461	CE1	TYR	A	189	10.733	54.675	42.029	1.00 41.28
	ATOM	1462	CE2	TYR	A	189	9.023	56.067	43.031	1.00 33.53
	ATOM	1463	CZ	TYR	A	189	10.279	55.927	42.441	1.00 44.38
	ATOM	1464	OH	TYR	A	189	11.084	57.022	42.277	1.00 44.92
	ATOM	1465	N	LYS	A	190	7.395	49.801	40.929	1.00 35.47
	ATOM	1466	CA	LYS	A	190	7.125	48.373	40.772	1.00 36.67

	ATOM	1467	C	LYS	A	190	8.131	47.441	41.475	1.00	32.16
	ATOM	1468	O	LYS	A	190	9.337	47.667	41.471	1.00	30.99
	ATOM	1469	CB	LYS	A	190	6.872	47.992	39.310	1.00	39.45
	ATOM	1470	CG	LYS	A	190	5.457	48.328	38.833	1.00	44.38
5	ATOM	1471	CD	LYS	A	190	5.417	49.126	37.539	1.00	56.65
	ATOM	1472	CE	LYS	A	190	5.539	48.274	36.282	1.00	73.04
	ATOM	1473	NZ	LYS	A	190	6.686	48.658	35.433	1.00	92.77
	ATOM	1474	N	PHE	A	191	7.592	46.380	42.076	1.00	27.93
	ATOM	1475	CA	PHE	A	191	8.393	45.421	42.812	1.00	25.63
10	ATOM	1476	C	PHE	A	191	7.916	43.986	42.679	1.00	25.33
	ATOM	1477	O	PHE	A	191	6.708	43.667	42.633	1.00	24.55
	ATOM	1478	CB	PHE	A	191	8.281	45.779	44.306	1.00	27.49
	ATOM	1479	CG	PHE	A	191	8.548	47.238	44.618	1.00	26.47
	ATOM	1480	CD1	PHE	A	191	9.838	47.668	44.922	1.00	27.21
15	ATOM	1481	CD2	PHE	A	191	7.508	48.167	44.619	1.00	27.67
	ATOM	1482	CE1	PHE	A	191	10.086	49.004	45.223	1.00	28.50
	ATOM	1483	CE2	PHE	A	191	7.739	49.510	44.909	1.00	29.86
	ATOM	1484	CZ	PHE	A	191	9.038	49.923	45.205	1.00	28.47
20	ATOM	1485	N	ILE	A	192	8.868	43.076	42.700	1.00	26.53
	ATOM	1486	CA	ILE	A	192	8.485	41.669	42.616	1.00	30.09
	ATOM	1487	C	ILE	A	192	9.228	40.779	43.609	1.00	26.87
	ATOM	1488	O	ILE	A	192	10.446	40.810	43.711	1.00	23.15
	ATOM	1489	CB	ILE	A	192	8.661	41.088	41.208	1.00	36.97
	ATOM	1490	CG1	ILE	A	192	10.132	40.970	40.936	1.00	39.49
25	ATOM	1491	CG2	ILE	A	192	8.036	41.938	40.104	1.00	38.69
	ATOM	1492	CD1	ILE	A	192	10.620	39.563	41.245	1.00	73.45
	ATOM	1493	N	GLN	A	193	8.481	39.967	44.331	1.00	25.43
	ATOM	1494	CA	GLN	A	193	9.095	39.055	45.295	1.00	24.94
	ATOM	1495	C	GLN	A	193	8.684	37.626	44.993	1.00	25.94
30	ATOM	1496	O	GLN	A	193	7.590	37.181	45.376	1.00	25.03
	ATOM	1497	CB	GLN	A	193	8.808	39.412	46.772	1.00	24.11
	ATOM	1498	CG	GLN	A	193	9.426	38.422	47.782	1.00	17.67
	ATOM	1499	CD	GLN	A	193	10.947	38.402	47.777	1.00	23.92
	ATOM	1500	OE1	GLN	A	193	11.568	37.485	47.248	1.00	24.84
35	ATOM	1501	NE2	GLN	A	193	11.568	39.376	48.394	1.00	21.35
	ATOM	1502	N	LYS	A	194	9.611	36.945	44.296	1.00	24.59
	ATOM	1503	CA	LYS	A	194	9.486	35.548	43.842	1.00	26.30
	ATOM	1504	C	LYS	A	194	9.677	34.457	44.943	1.00	33.55
	ATOM	1505	O	LYS	A	194	9.254	33.305	44.759	1.00	33.23
40	ATOM	1506	CB	LYS	A	194	10.379	35.289	42.612	1.00	26.74
	ATOM	1507	CG	LYS	A	194	9.722	35.609	41.258	1.00	39.96
	ATOM	1508	CD	LYS	A	194	10.697	36.137	40.199	1.00	47.00
	ATOM	1509	CE	LYS	A	194	10.182	36.110	38.751	1.00	59.13
	ATOM	1510	NZ	LYS	A	194	11.226	35.798	37.746	1.00	54.07
45	ATOM	1511	N	VAL	A	195	10.332	34.795	46.076	1.00	25.61
	ATOM	1512	CA	VAL	A	195	10.542	33.829	47.155	1.00	23.02
	ATOM	1513	C	VAL	A	195	9.385	33.947	48.108	1.00	27.87
	ATOM	1514	O	VAL	A	195	9.099	35.029	48.566	1.00	29.77
	ATOM	1515	CB	VAL	A	195	11.833	34.049	47.930	1.00	22.42
50	ATOM	1516	CG1	VAL	A	195	11.997	32.891	48.881	1.00	22.09
	ATOM	1517	CG2	VAL	A	195	13.057	34.101	47.027	1.00	21.83
	ATOM	1518	N	PRO	A	196	8.687	32.867	48.391	1.00	24.28
	ATOM	1519	CA	PRO	A	196	7.572	32.955	49.297	1.00	22.68
	ATOM	1520	C	PRO	A	196	8.042	33.362	50.704	1.00	27.58
55	ATOM	1521	O	PRO	A	196	9.027	32.837	51.244	1.00	25.38
	ATOM	1522	CB	PRO	A	196	6.886	31.588	49.301	1.00	24.52
	ATOM	1523	CG	PRO	A	196	7.686	30.674	48.397	1.00	28.81
	ATOM	1524	CD	PRO	A	196	8.822	31.497	47.831	1.00	24.64
	ATOM	1525	N	ILE	A	197	7.339	34.328	51.287	1.00	22.20
60	ATOM	1526	CA	ILE	A	197	7.713	34.810	52.578	1.00	19.62
	ATOM	1527	C	ILE	A	197	6.498	35.005	53.418	1.00	24.85
	ATOM	1528	O	ILE	A	197	5.391	35.163	52.919	1.00	20.49
	ATOM	1529	CB	ILE	A	197	8.307	36.176	52.383	1.00	21.90
	ATOM	1530	CG1	ILE	A	197	7.317	36.930	51.510	1.00	23.26